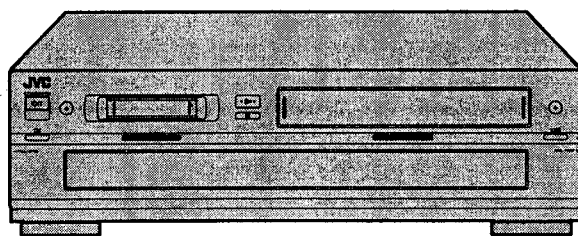


JVC

SERVICE MANUAL

/S-VHS VIDEO CASSETTE RECORDER

HR-DVS1EK



Mini DV PAL

Hi-Fi S-VHS 625

VIDEO Plus+

ACHTUNG

Dieses Service Manual dient nur zur Referenz. Wartungen/Reparaturen werden generell zentral oder in dafür autorisierten Service Centern durchgeführt. Nähere Informationen hierzu können Sie im ISDN-Infoip bzw. über die JVC-Hotline (06031) 939-3 erfragen.

Zubehör- u. Gehäuseteile sind bestellbar, sonstige Ersatzteile werden nur auf besondere Anfrage geliefert. Bei Fremdeingriffen bestehen keine Gewährleistungsansprüche, Kulanzregelungen sind daher ausgeschlossen.

INS

Power requirement	: AC 220 – 240 V~, 50/60 Hz
Power consumption	
Power on	: 40 W
Power off	: 9.0 W
Temperature	
Operating	: 5°C to 40°C
Storage	: -20°C to 60°C
Operating position	: Horizontal only
Dimensions (WxHxD)	: 437 x 127 x 380 mm
Weight	: 7.6 kg
Input/Output	: 21-pin SCART connectors : IN/OUT x 1, IN/DECODER x 1 RCA connectors: VIDEO IN x 1, AUDIO IN x 1, AUDIO OUT x 1 S-Video connectors: IN x 1, OUT x 1 DV connector: IN/OUT x 1 (4-pin, IEEE1394 conformity, digital input/output)

VHS DECK VIDEO/AUDIO

Signal system	: PAL-type colour signal and CCIR monochrome signal, 625 lines 50 fields
Recording system	: DA4 (Double Azimuth) head helical scan system
Format	: S-VHS/VHS PAL standard
Signal-to-noise ratio	: 45 dB
Horizontal resolution	: 250 lines (VHS) 400 lines (S-VHS)
Frequency range	: 70 Hz to 10,000 Hz (Normal audio) 20 Hz to 20,000 Hz (Hi-Fi audio)
Maximum recording time	
(SP)	: 240 min. with E-240 video cassette
(LP)	: 480 min. with E-240 video cassette

DV DECK VIDEO/AUDIO

Signal system	: PAL-type colour signal, 625 lines 50 fields
Recording system	: Digital Component Recording
Format	: DV format (SD mode)
Cassette	: Mini DV Cassette
Maximum recording time	
(SP)	: 60 min. with M-DV60ME cassette
(LP)	: 90 min. with M-DV60ME cassette
Audio recording system	: PCM 48 kHz, 16 bit (2 ch)/ 32 kHz, 12 bit (4 ch)

TUNER/TIMER

TV channel storage capacity	: 99 positions (+AUX position)
Tuning system	: Frequency synthesized tuner
Channel coverage	: VHF 47 – 89/104 – 300/ 302 – 470MHz UHF 470 – 862MHz
Memory backup time	: Approx. 60 min.

ACCESSORIES

Provided accessories	: RF cable, 21-pin SCART cable, Infrared remote control unit, Power cord, "AA" battery x 2
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Specifications shown are for SP mode unless otherwise specified.
E. & O.E. Design and specifications subject to change without notice.

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Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorised in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits.
2. Any unauthorised design alterations or additions will void the manufacturer's guarantee ; furthermore the manufacturer cannot accept responsibility for personal injury or property damage resulting therefrom.
3. Essential safety critical components are identified by () on the Parts List and by shading on the schematics, and must never be replaced by parts other than those listed in the manual. please note however that many electrical and mechanical parts in the product have special safety related characteristics. These characteristics are often not evident from visual inspection. Parts other than specified by the manufacturer may not have the same safety characteristics as the recommended replacement parts shown in the Parts List of the Service manual and may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

Warning

1. Service should be performed by qualified personnel only.
2. This equipment has been designed and manufactured to meet international safety standards.
3. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
4. Repairs must be made in accordance with the relevant safety standards.
5. It is essential that safety critical components are replaced by approved parts.
6. If mains voltage selector is provided, check setting for local voltage.

Safety Precautions

The rating plate and the safety caution are on the rear of the unit.

WARNING: DANGEROUS VOLTAGE INSIDE

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

IMPORTANT

- Please read the various precautions on p. 2 – 4 of this instruction manual before installing or operating the recorder.
- It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

IMPORTANT

Connection to the mains supply in the United Kingdom.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain a proper safety approved extension lead/adaptor or consult your dealer.

In the unlikely event of the plug fuse failing be sure to replace the fuse only with an identical approved type, as originally fitted, and to replace the fuse cover. If the fuse fails again consult your nearest JVC dealer.

If nonetheless the mains plug is cut off remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

DO NOT make any connection to the Larger Terminal coded E or Green.

The wires in the mains lead are coloured in accordance with the following code:



If these colours do not correspond with the terminal identifications of your plug, connect as follows:

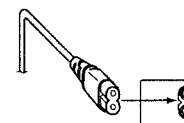
Blue wire to terminal coded N (Neutral) or coloured Black.

Brown wire to terminal coded L (Live) or coloured Red.

If in doubt — consult a competent electrician.

INSTRUCTIONS

CAUTION



- To avoid electric shock or damage to the unit, first firmly insert the small end of the mains power cord into the recorder until it is no longer wobbly, and then plug the larger end of the mains power cord into a mains outlet.
- When you are not using the recorder for a long period of time, it is recommended that you disconnect the power cord from the mains outlet.
- Dangerous voltage inside. Refer internal servicing to qualified service personnel. To prevent electric shock or fire hazard, remove the power cord from the mains outlet prior to connecting or disconnecting any signal lead or aerial.

The STANDBY/ON ϕ /I button does not completely shut off mains power from the unit, but switches operating current on and off. " ϕ " shows electrical power standby and " I " shows ON.

Video tapes recorded with this video recorder in the LP (Long Play) mode cannot be played back on a single-speed video recorder.

Failure to heed the following precautions may result in damage to the recorder, remote control or video cassette.

1. **DO NOT** place the recorder . . .

- ... in an environment prone to extreme temperatures or humidity.
- ... in direct sunlight.
- ... in a dusty environment.
- ... in an environment where strong magnetic fields are generated.
- ... on a surface that is unstable or subject to vibration.

2. **DO NOT** block the recorder's ventilation openings.

3. **DO NOT** place heavy objects on the recorder or remote control.

4. **DO NOT** place anything which might spill on top of the recorder or remote control.

5. **AVOID** violent shocks to the recorder during transport.

MOISTURE CONDENSATION

Moisture in the air will condense on the recorder when you move it from a cold place to a warm place, or under extremely humid conditions—just as water droplets form in the surface of a glass filled with cold liquid. Moisture condensation on the head drum will cause damage to the tape. In conditions where condensation may occur, keep the recorder turned on for a few hours to let the moisture dry.

ABOUT HEAD CLEANING

Accumulation of dirt and other particles on the video heads may cause the playback picture to become blurred or interrupted. Be sure to contact your nearest JVC dealer if such troubles occur.



- Cassettes marked "S-VHS" and "VHS" can be used with this video cassette recorder. However, S-VHS recordings are possible only with cassettes marked "S-VHS".

- Cassettes marked "Mini DV" can be used with the DV deck of this recorder. The DV deck can play back and record only PAL signals.

- VIDEO Plus+ and PlusCode are registered trademarks of Gemstar Development Corporation. The VIDEO Plus+ system is manufactured under license from Gemstar Development Corporation.

Some Do's And Don'ts On The Safe Use Of Equipment

This equipment has been designed and manufactured to meet international safety standards but, like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

- DO** read the operating instructions before you attempt to use the equipment.
- DO** ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.
- DO** consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.
- DO** be careful with glass panels or doors on equipment.
- DON'T** continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way — switch off, withdraw the mains plug and consult your dealer.
- DON'T** remove any fixed cover as this may expose dangerous voltages.
- DON'T** leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode. Switch off using the switch on the equipment and make sure that your family knows how to do this. Special arrangements may need to be made for infirm or handicapped people.
- DON'T** use equipment such as personal stereos or radios so that you are distracted from the requirements of road safety. It is illegal to watch television whilst driving.
- DON'T** listen to headphones at high volume, as such use can permanently damage your hearing.
- DON'T** obstruct the ventilation of the equipment, for example with curtains or soft furnishings. Overheating will cause damage and shorten the life of the equipment.
- DON'T** use makeshift stands and NEVER fix legs with wood screws — to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.
- DON'T** allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL...

- NEVER let anyone especially children push anything into holes, slots or any other opening in the case — this could result in a fatal electrical shock;
- NEVER guess or take chances with electrical equipment of any kind — it is better to be safe than sorry!

► Dear Customer,

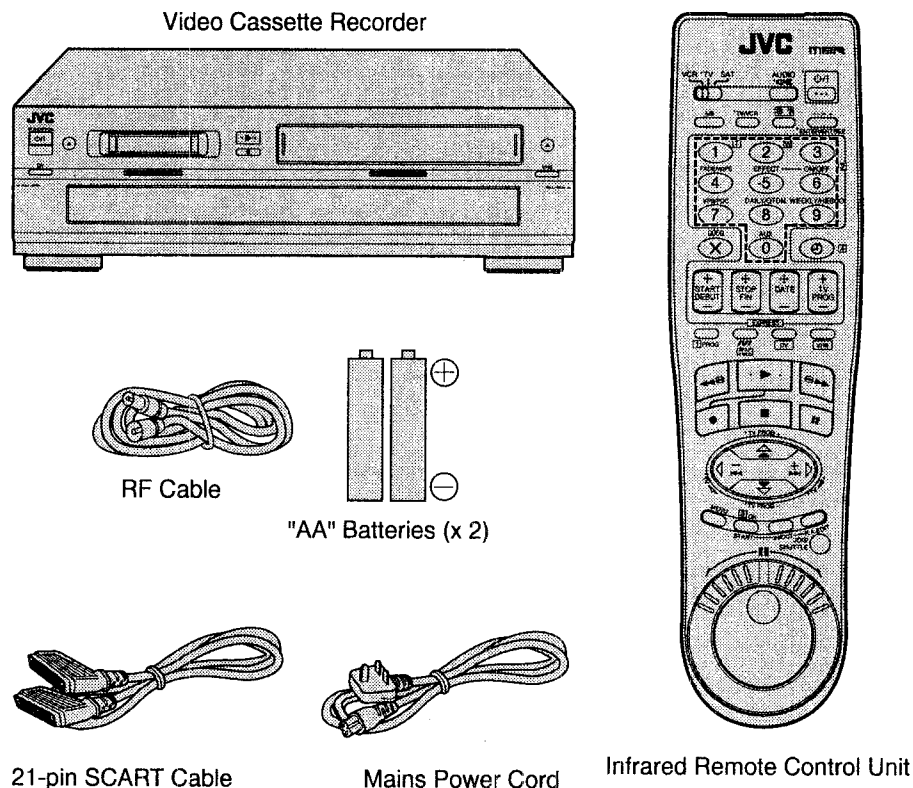
Thank you for purchasing this JVC Video Cassette Recorder.
Please use this **QUICK SET UP GUIDE** to help you to set up your video cassette recorder.

STEP

1

CHECK THE CONTENTS

CHECK ALL THE CONTENTS SHOWN BELOW



► You are now ready to install your video recorder.

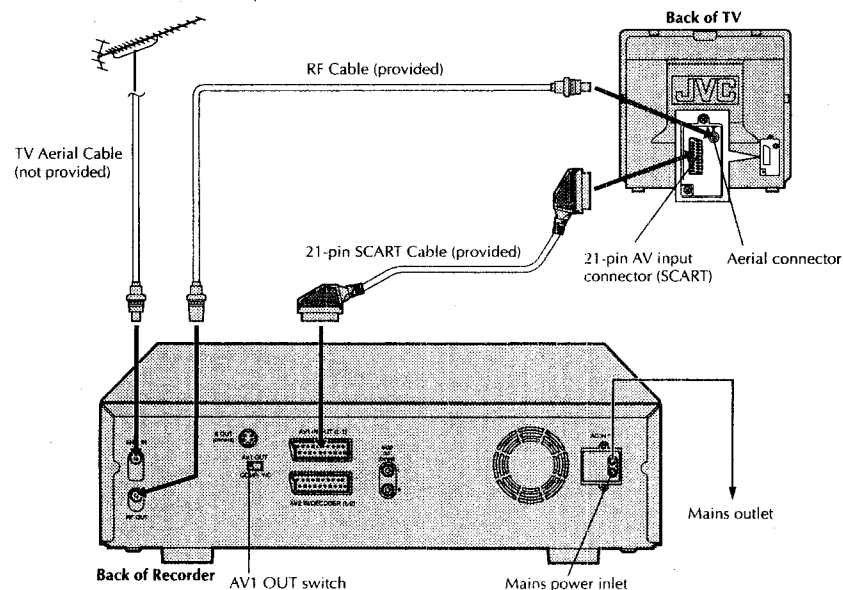
STEP

2

INSTALLATION

CONNECT VIDEO RECORDER TO TV

- Place the recorder on a stable, flat surface.

**ATTENTION:**

You can not use the recorder connected to your TV only with the RF cable. This is because the RF cable does not deliver signal from the recorder. Your TV must have a 21-pin AV input connector (SCART) to connect to the recorder.

AV CONNECTION

To connect to a TV with 21-pin AV input connector (SCART) ...

- 1- Disconnect the TV aerial cable from the TV.
- 2- Connect the TV aerial cable to the ANT. IN jack on the rear panel of the recorder.
- 3- Connect the provided RF cable between the RF OUT jack on the rear panel of the recorder and the TV's aerial connector.

- 4- Connect the provided SCART cable between the AV1 IN/OUT socket on the rear panel of the recorder and the TV's 21-pin AV input connector (SCART).

- 5- Set the **AV1 OUT** switch to the appropriate position. See "AV1 INPUT/OUTPUT SIGNAL SELECTION FOR AV CONNECTION" below.

AV1 INPUT/OUTPUT SIGNAL SELECTION FOR AV CONNECTION

The AV1 IN/OUT connector accepts and delivers either a composite signal (regular video signal) or a Y/C signal (a signal in which the luminance and chrominance signals are separated). For input signal selection, select "VIDEO" (regular video signal) or "S-VIDEO" (Y/C signal) for "AV1 SELECT" setting (pg. 48). For output signal selection, use the **AV1 OUT** switch on the rear panel.

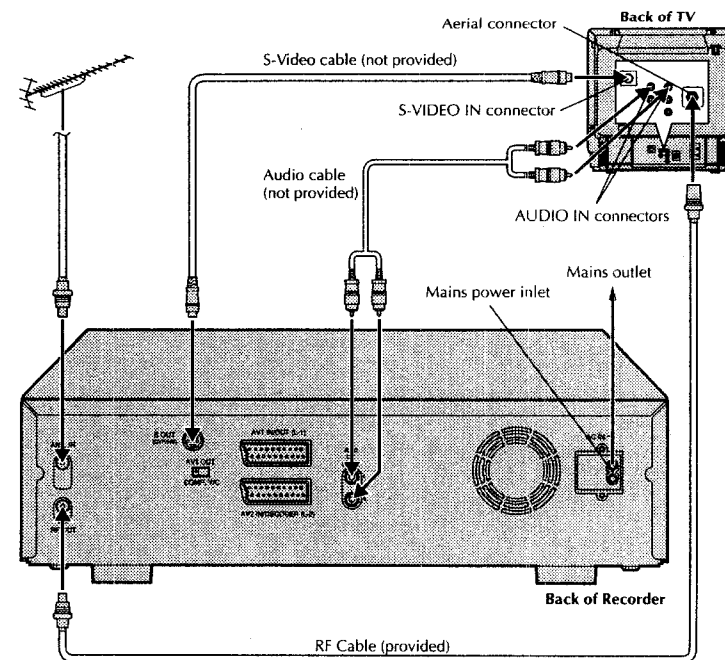
- If your TV's 21-pin AV input connector (SCART) is compatible only with the regular video signal, set this switch to COMP.
- If your TV's 21-pin AV input connector (SCART) is compatible with the Y/C signal, set this switch to Y/C. You can obtain high-quality S-VHS pictures. (For connection, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.)

NOTES:

- Set your TV to the VIDEO (or AV), Y/C, or RGB mode according to the type of your TV's SCART connector.
- For switching the TV's mode, refer to the instruction manual of your television.
- To obtain high-quality S-VHS pictures, you can also use the S-VIDEO CONNECTION described on page 7.

ATTENTION

- Do NOT Plug the mains power cord into a mains outlet until all connections are completed.
- Do NOT press the ψ /I button on the recorder or on the remote control to turn on the recorder's power before you start the Auto Set Up procedure described on page 8.

**S-VIDEO CONNECTION**

To connect to a TV with S-VIDEO/AUDIO IN connectors ...

- 1- Connect the aerial, recorder and TV as per "AV CONNECTION" (pg. 6).
- 2- Connect the recorder's S OUT connector to the TV's S-VIDEO IN connector.
- 3- Connect the recorder's AUDIO OUT connectors to the TV's AUDIO IN connectors.

NOTES:

- You can obtain high-quality S-VHS pictures.
- If your television is not stereo-capable, use the recorder's AUDIO OUT connectors to connect to an audio amplifier for Hi-Fi stereo sound reproduction. (pg. 58)
- To operate the recorder with your TV using the S-VIDEO connection, set your TV to the AV mode.
- For switching the TV's mode, refer to the instruction manual of your television.

ATTENTION

- Do NOT Plug the mains power cord into a mains outlet until all connections are completed.
- Do NOT press the ψ /I button on the recorder or on the remote control to turn on the recorder's power before you start the Auto Set Up procedure described on page 8.

AFTER YOU FINISH THIS STEP

Go to Step 3 - AUTO SET UP

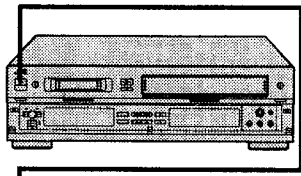
STEP 3 AUTO SET UP

SET THE TUNER CHANNELS, CLOCK AND GUIDE PROGRAM NUMBERS

The Auto Set Up function sets the tuner channels, clock and VIDEO Plus+ assigned Guide Program numbers automatically the first time the ψ /I button on the recorder or on the remote is pressed to turn on the recorder after the mains power cord has been plugged into a mains outlet.

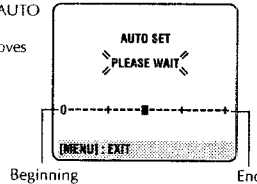
Before performing the following procedure, make sure that:

- the TV aerial cable is connected to the recorder.
- the mains power cord is plugged into the mains outlet.
- batteries have been installed in the remote control.



1 Press ψ /I to turn on the recorder.

- 2 If "Auto" appears on the display panel, press **OK** or $\triangleright$. "Auto" blinks; do NOT press any button on the recorder or remote control until the display panel shows either the display as illustrated on page 10 or "— : — : —". Auto Set Up usually takes about 4 – 12 minutes; the duration varies by area.
- If you are using the on-screen display, the AUTO SET screen will appear. As Auto Set Up progresses, the "■" mark on the screen moves from left to right.
 - If "— : — : —" appears on the display panel, refer to page 10.



3 Press **OK** to finish Auto Set Up and refer to page 10 to check the results.

ATTENTION

Once you have performed Auto Set Up, all the stored stations and Guide Program numbers remain in the recorder's memory and the recorder will not perform Auto Set Up again. If there is a power cut and the recorder's memory backup expires you only need to reset the clock. (pg. 69)

If you have moved to a different area, perform each setting as required.

- Tuner setting pg. 62
- Clock setting pg. 69

If a new station begins broadcasting in your area, perform tuner setting (pg. 62).

NOTES:

- Auto channel set function takes place first; it assigns automatically all receivable stations in your area.
- Auto clock set function sets the clock automatically.
- During auto channel set, the recorder recognizes each station name of the detected stations and stores them in the recorder's memory, then automatically sets the VIDEO Plus+ assigned Guide Program numbers for those stations according to the broadcast area.
- If there is a power cut or if you press ψ /I or **MENU** while Auto Set Up is in progress, Auto Set Up will be interrupted; be sure to turn off the recorder power once and press ψ /I to turn the power back on in order to re-start Auto Set Up.

PRESET DOWNLOAD

SET THE TUNER CHANNELS BY DOWNLOADING FROM YOUR TV, CLOCK AND GUIDE PROGRAM NUMBERS

When you connect the recorder and your TV via fully-wired 21-pin SCART cable (pg. 6), you can set the recorder's tuner channels by downloading preset data from your TV instead of using the Auto Set Up function (pg. 8). After downloading is completed, the recorder sets the clock and VIDEO Plus+ assigned Guide Program numbers automatically. For details, refer to the instruction manual for your TV.

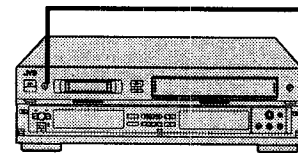
ATTENTION

You can use this function only with a TV offering T-V Link, etc.*

* Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NEXTVIEWLINK via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.

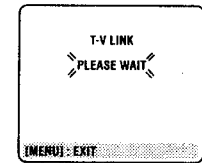
Before performing the following procedure, make sure that:

- the TV aerial cable is connected to the recorder and a 21-pin SCART cable is connected between your TV and the recorder.
- the mains power cord is plugged into the mains outlet.
- batteries have been installed in the remote control.



1 Press ψ /I to turn on the recorder.

- 2 If "Auto" appears on the display panel, Press Δ / ∇ to select "CH --" and press **OK** or $\triangleright$. Preset position on the display panel increases from "CH1"; do NOT press any button on the recorder or remote control until the display panel shows either the display as illustrated on page 10 or "— : — : —".
- If "— : — : —" appears on the display panel, refer to page 10.
 - If you are using the on-screen display, the T-V LINK screen will appear. Then the GUIDE PROG SET screen will appear during Guide Program number set.
 - If you press any button on the recorder or remote control while downloading is in progress, this process will be interrupted and you will need to start again. See NOTES below.



NOTES:

- In areas where no TV station transmits the PDC signal, the recorder cannot perform either auto clock set or auto Guide Program number set.
- If there is a power cut, or if you press ψ /I or **MENU** while downloading or set up is in progress, it will be interrupted; be sure to turn off the recorder power once and try again from the beginning.
- Auto clock may not function properly depending on reception conditions.
- When you perform T-V LINK function, be sure to use fully-wired 21-pin SCART cable.
- On this recorder, the characters available for station names (ID) are A-Z, 0-9, -, *, and — (space). The names of some downloaded stations may differ from those on your TV (pg. 66).

Auto Set Up/Preset Download results appear on the display panel

When both auto channel set and auto clock set have been completed successfully the correct current time will be displayed after the **OK** button is pressed in item **2** on page 8 or after performing item **2** on page 9.



When auto channel set has been completed successfully but auto clock set has not, "(PR)1" will be displayed after the **OK** button is pressed in item **2** on page 8 or after performing item **2** on page 9.



When neither auto channel set nor auto clock set has been completed successfully, "-:-:-" will be displayed.

* You can check if the Guide Program numbers have been set correctly when you perform VIDEO Plus+ Timer Programming (pg. 18); if the correct preset position number is displayed in step 3, this confirms that the Guide Program number for the PlusCode number you enter in step 2 has been set correctly.

A If both auto channel set and auto clock set have been performed successfully:

- 1 Turn on the TV and select its AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **TV PROG** button(s).
 - If station names (ID — pg. 67) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds each time the recorder is tuned to a different station.
 - If you want to set the tuner manually such as to add or skip channels, to change preset positions, or to set or change station names, see pages 64 – 66.

Now you have finished the basic set up and can use your recorder for both playback and recording.

B If auto channel set has succeeded but auto clock set has not:

- 1 Turn on the TV and select its AV mode, then make sure that all necessary stations have been stored in the recorder's memory by using the **TV PROG** button(s).
 - If station names (ID — pg. 67) have also been stored in the recorder's memory, the station name will be displayed at the top left corner of the screen for about 5 seconds each time the recorder is tuned to a different station.
 - If you want to set the tuner manually such as to add or skip channels, to change preset positions, or to set or change station names, see pages 64 – 66.
- 2 Perform "Clock Set" on page 69.

Now you have finished the basic set up and can use your recorder for both playback and recording.

C If both auto channel set and auto clock set have failed:

- 1 Make sure that the TV aerial cable is connected properly to the recorder, or that the 21-pin SCART cable is connected properly between TV and the recorder. Turn off the recorder power once, then turn the recorder power back on again.
- 2 Perform "Auto Set Up" on page 8 or "Preset Download" on page 9.

IMPORTANT

- In certain reception conditions, station names may not be stored correctly, and auto Guide Program Number Set may not work properly. If the Guide Program numbers are not set properly, when you timer-record a TV programme using VIDEO Plus+, the recorder will record a TV programme of a different station. When programming the timer using VIDEO Plus+, be sure to check that the preset position corresponding to the broadcasting station you wish to record has been selected (pg. 18, "VIDEO Plus+ Timer Programming").
- Your video recorder memorizes all detected stations even if reception of some of them is poor. In these cases picture quality may be poor. To delete those stations which have an unacceptable picture (pg. "Delete A Channel" on page 65).
- If any of the above problems occur, refer to pages 64 – 66 to input station names (pg. "Set Stations") or delete unnecessary stations (pg. "Delete A Channel"). You can also change station preset positions (pg. "Change Station Preset Position").

If you have any difficulty with the above procedures call the JVC Customer Service Hot Line on 0208 208 7654

T-V Link Functions

When you connect the recorder and your TV via a fully-wired 21-pin SCART cable (pg. 6), the following functions are available. You can use these functions only with a TV offering T-V Link, etc.*

For details, refer to the instruction manual for your TV.

* Compatible with TVs offering T-V Link, EasyLink, Megalogic, SMARTLINK, Q-Link, DATA LOGIC or NEXTVIEWLINK via fully-wired 21-pin SCART cable. The degree of compatibility and available functions may differ by system.

NexTVView Link

You can download the EPG (Electronic Programme Guide) information from your TV for timer-programming on the recorder.

For details, refer to the instruction manual for your TV.

TV Auto Power On

You can turn on the TV and set it to video mode automatically whenever you play a tape.

For details, refer to the instruction manual for your TV.

VCR Auto Standby

You can use your TV's remote control to turn off the recorder. For details, refer to the instruction manual for your TV.

Direct Rec

You can start recording the programme that you are watching on your TV with simple operation. Press and hold **RECORD** and press **PLAY** on the remote control, or press **RECORD** on the recorder.

Follow the procedure below to use this function.

1 TURN ON THE RECORDER

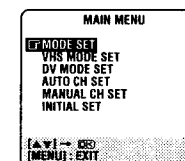
Press **ON**.

2 ACCESS MAIN MENU SCREEN

Press **MENU**.

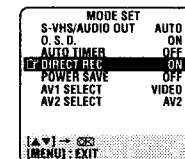
3 ACCESS MODE SET SCREEN

Press **Δ** to move the highlight bar (pointer) to "MODE SET", then press **OK** or **▶**.



4 SELECT DIRECT REC MODE

Press **Δ** to move the highlight bar (pointer) to "DIRECT REC", then press **OK** or **▶** to set to "ON".



5 RETURN TO NORMAL SCREEN

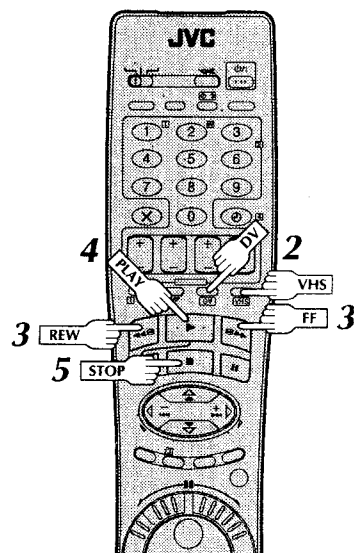
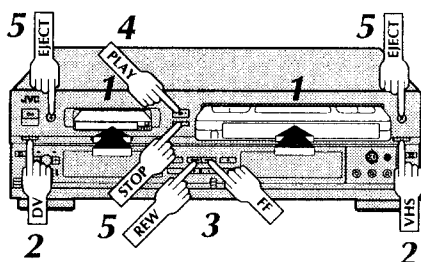
Press **MENU**.

NOTES:

- If "DIRECT REC" is set to "OFF", the **RECORD** button functions as described in "Recording" (pg. 15).
- During the Direct Rec, "-:-" appears on the display panel.
- When you perform T-V LINK functions, be sure to use a fully-wired 21-pin SCART cable.
- Retake function does not work during Direct Rec (pg. 56).
- Direct Rec is not possible with a scrambled broadcast.
- To record a scrambled broadcast, set "DIRECT REC" to "OFF" and follow the procedure described in "Recording" on page 15.

Playback

Turn on the TV and select the AV mode.



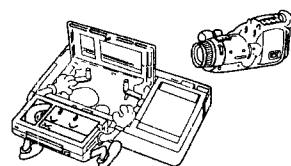
Usable cassettes

VHS deck

- Compact VHS camcorder recordings can be played on this video recorder. Simply place the recorded cassette into a VHS Cassette Adapter and it can be used just like any full-sized VHS cassette.
- The VHS deck of this video recorder can record on regular VHS and Super VHS cassettes. While only VHS signals can be recorded on regular VHS cassettes, both VHS and Super VHS signals can be recorded and played back using Super VHS cassettes.

DV deck

Only cassettes marked **Mini DV** can be used with the DV deck.



The easiest, most basic operation possible with your video recorder is tape playback. Already-recorded signals on a video tape are read by your video recorder and displayed on your TV just like a TV programme.

LOAD A CASSETTE

- 1 Making sure the window side is up, the rear label side is facing you and the arrow on the front of the cassette is pointing towards the recorder. Don't apply too much pressure when inserting.

- The recorder power comes on automatically. The counter is reset to 0:00:00 (VHS deck only).
- **VHS deck**
If the record safety tab has been removed, playback begins automatically.
- **DV deck**
If the erase protection switch is set to "SAVE", playback begins automatically.

SELECT DECK

Press **VHS** or **DV**. The VHS or DV indicator lights.

FIND PROGRAMME START POINT

- 3 If the tape is advanced past the start point, press **REW**. To go forward, press **FF**.

START PLAYBACK

- 4 Press **PLAY**. "BEST" appears blinking in the recorder's display panel during automatic tracking. (VHS deck only $\square$ pg. 24)

- Playback picture quality of LP recordings will not be as high as SP recordings.

STOP PLAYBACK

- 5 Press **STOP**. Then press **EJECT** on the VHS or DV deck to remove the cassette.

INFORMATION

Initiating playback causes the VCR indicator to light and the TV to automatically enter AV mode. To return the TV to TV mode after playback is complete, press **TV/VCR** so that the VCR indicator turns off.

* Depending on the type of TV used, **TV/VCR** button does not always function as described above.

High-Speed (Turbo) Search

ACTIVATE HIGH-SPEED SEARCH

- 1 During playback or still, turn the **SHUTTLE** ring all the way to the right for forward high-speed search, or to the left for reverse high-speed search. Releasing **SHUTTLE** resumes still picture playback.

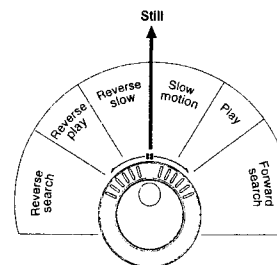
OR

During playback or still, press **FF** for forward high-speed search, or **REW** for reverse high-speed search.

To resume normal playback, press **PLAY**.

NOTE:

For short searches, press and hold **FF** or **REW** for over 2 seconds during playback or still picture. When released, normal playback resumes.



NOTES:

- Refer to the **SHUTTLE** ring illustration above as you read the following procedures.
- To use the remote control's **JOG** dial or **SHUTTLE** ring, press **JOG/SHUTTLE** first so that the button lights. Pressing the button again turns off the light.
- When using the **JOG** dial during playback on the DV deck, turn the **JOG** dial slowly.

Still Picture/Frame-By-Frame Playback

PAUSE DURING PLAYBACK

Press **PAUSE**.

ACTIVATE FRAME-BY-FRAME PLAYBACK

- 2 Turn the **JOG** dial to the right for forward frame-by-frame playback, or to the left for reverse frame-by-frame playback.

OR

Press **PAUSE**.

OR

Press $\triangleleft$ or $\triangleright$. (VHS deck only)

To resume normal playback, press **PLAY**.

Slow Motion

ACTIVATE SLOW-MOTION PLAYBACK

- 1 During still picture, turn the **SHUTTLE** ring to the right for forward slow motion, or to the left for reverse slow motion (refer to the illustration above).

OR

During still picture, press and hold **PAUSE** for 2 seconds, then release. Press and release again to return to still picture. (VHS deck only)

OR

During still picture, press and hold $\triangleleft$ or $\triangleright$. Release to return to still picture. (VHS deck only)

To resume normal playback, press **PLAY**.

Variable-Speed Search

ACTIVATE VARIABLE-SPEED SEARCH

- 1 During playback or still, turn the **SHUTTLE** ring to the right for forward variable-speed search, or to the left for reverse variable-speed search (refer to the illustration in the left column).

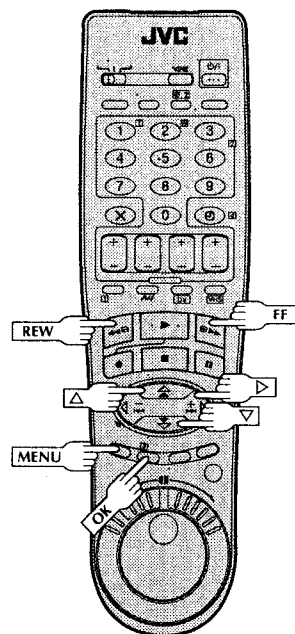
To resume normal playback, press **PLAY**.

ATTENTION (VHS Deck)

- In the high-speed search, still, slow-motion or frame-by-frame playback mode,
- the picture will be distorted.
- noise bars will appear.
- there will be a loss of colour with a tape recorded in LP mode.
- Picture may not appear during high-speed search with a tape recorded in LP mode.
- When normal playback resumes from search, still, slow motion or frame-by-frame playback, the picture may jitter vertically momentarily depending on the type of TV being used.

(DV Deck)

- In the high-speed search, still, slow-motion or frame-by-frame playback mode with a Mini DV tape, a slight mosaic effect appears on screen.



DISPLAY Mode Setting (DV Deck)

Set "DISPLAY" to "ON" to display the date and time of the original recording.

- 1 Press **MENU** to access the Main Menu screen.
- 2 Move the highlight bar (pointer) to "DV MODE SET" by pressing Δ , then press **OK** or $\triangleright$.
- 3 Move the highlight bar (pointer) to "DISPLAY" by pressing Δ , then press **OK** or $\triangleright$ to select "ON" or "OFF".
- 4 Press **MENU** to return to the normal screen.



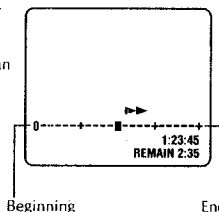
Tape Position Indicator (VHS Deck)

The tape position indicator appears on screen when, from the Stop mode, you press **FF**, **REW** or perform an Index Search. The position of "■" in relation to "0" (beginning) or "+" (end) shows you where you are on the tape.

"O.S.D." (pg. 52) must be set to "ON", or the indicator will not appear.

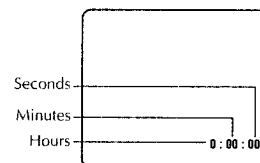
NOTE:

Depending on the type of tape used, there may be times when the indication is not correct.



Time Code (DV Deck)

During recording, a time code is recorded on the tape. This time code is used to confirm the position on the tape when playing or editing a tape. To perform Random Assemble Editing (pg. 36), time code is necessary.



NOTES:

The presence of a blank (unrecorded) portion in the middle of a tape can result in misoperation.

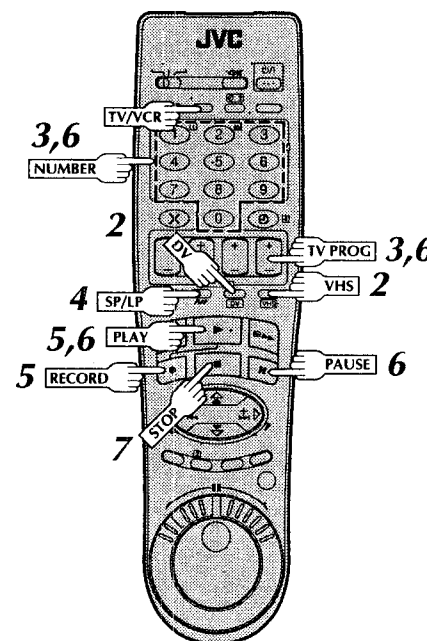
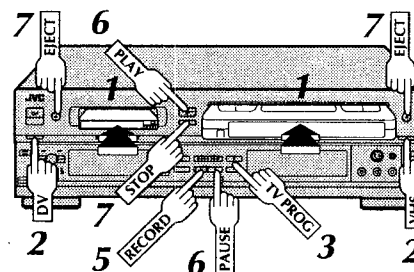
A "blank portion" of a tape is a section where nothing is recorded on the tape. If you start making a recording in a blank portion of a tape, the time codes will start from "0:00:00" again. If identical time codes are recorded in two different places on a tape, Random Assemble Editing and other similar functions might not operate properly.

In the following circumstances, you should play the tape and confirm where a scene ends, and then begin recording from there:

- When starting to record in the middle of a tape on which a recording has already been made.
- When you have made a recording on a tape, then played that recording back in order to check it, and now wish to continue recording.
- When you have lost power or the batteries have died while you were recording with a camcorder.

Recording

Turn on the TV and select the AV mode.



TV signals being received by the recorder's built-in tuner can be recorded onto a video tape. You can "capture" a TV programme using your video recorder.

LOAD A CASSETTE

- 1 Insert a VHS (or S-VHS) cassette with the record safety tab intact, or a Mini DV cassette with the erase protection switch set to "REC".

- The recorder power comes on automatically. The counter is reset to 0:00:00 (VHS deck only).

SELECT DECK

Press **VHS** or **DV**. The VHS or DV indicator lights.

CHOOSE A PROGRAMME

Press **TV PROG +/-** or the **NUMBER** keys to select the preset you wish to record.

SET TAPE SPEED

Press **SP/LP (///)**. Check the SP/LP indicator on the recorder display panel to confirm the selected tape speed.

- Picture quality of LP recordings will not be as high as on SP recordings.

START RECORDING

Press and hold **RECORD** and press **PLAY** on the remote control, or press **RECORD** on the recorder.

B.E.S.T. takes place at the beginning of both the first SP and the first LP recording after inserting the cassette (VHS deck only pg. 24).

If "DIRECT REC" is set to "ON", the programme that appears on the TV screen will be recorded (pg. 11). (Only with a TV offering T-V Link)

- You can not change the preset whilst recording is in progress. To change the preset, see step 6.

PAUSE/RESUME RECORDING

Press **PAUSE**. Press **PLAY** to resume recording.

- During the Record Pause mode, you can change the preset by pressing the **TV PROG +/-** buttons or the **NUMBER** keys.

STOP RECORDING

Press **STOP**. Then press **EJECT** on the VHS or DV deck to remove the cassette.

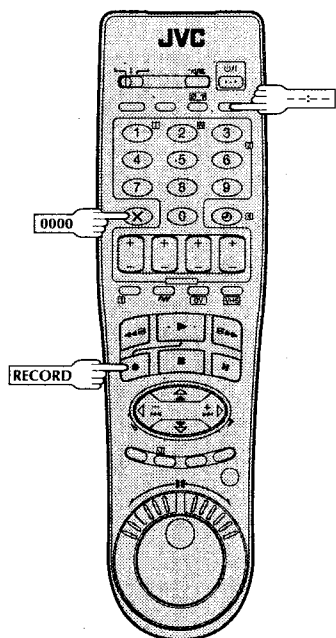
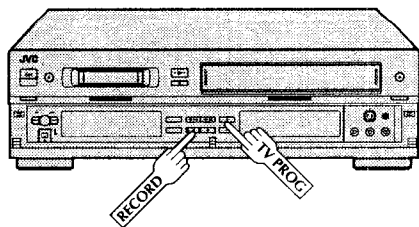
NOTES:

- It is not possible to record a TV programme on both the VHS deck and the DV deck simultaneously. In addition, it is not possible to record simultaneously from the same external input.
- When you record a tape on the DV deck with the recording speed set to "LP", we recommend that you play that tape back on this deck. Digital video recorders from other manufacturers may not be able to play the tape properly.

INFORMATION

You can switch between TV mode and AV mode by pressing **TV/VCR**.

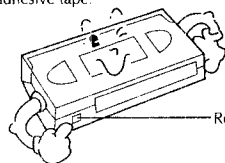
* Depending on the type of TV used, **TV/VCR** button does not function as described above.



Accidental erasure prevention

• VHS/S-VHS

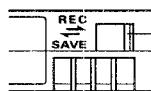
To prevent accidental recording on a recorded cassette, remove its safety tab. To record on it later, cover the hole with adhesive tape.



Record safety tab

• Mini DV

To prevent accidental recording on a recorded cassette, set its erase protection switch to "SAVE". To record on it later, set the switch to "REC".



Erase protection switch

Recording Resume Function

If there is a power cut during recording (or Instant Timer Recording or timer recording), the recording will resume automatically when power is restored to the recorder unless the recorder's memory backup has expired.

Record One Programme While Watching Another

1 SELECT PRESET TO WATCH

Once recording is in progress, all you need to do is to set the preset controls on the TV for the station you wish to view.

- The programme selected with the TV's preset controls appears on the TV screen while the one selected with the recorder's TV PROG buttons is recorded on the tape.

Instant Timer Recording (ITR)

This easy method lets you record for from 30 minutes to 6 hours (VHS) or to 120 minutes (DV) (selectable in 30-min. increments), and shuts the recorder off after recording is finished.

1 START RECORDING

Press **RECORD** on the recorder.

2 ENGAGE ITR MODE

Press **RECORD** again. "ITR" blinks and 0:30 appears on the front display panel.

3 SET RECORDING DURATION

If you want to record for more than 30 minutes, press **RECORD** to extend the time. Each press extends recording time by 30 minutes.

NOTES:

- You can only perform ITR using the **RECORD** button on the recorder's front panel.
- You can play a tape or record from an external input on one deck while using the other deck for Instant Timer Recording. However, remember that the deck will turn itself off when the Instant Timer Recording ends.

Tape Remaining Time (VHS Deck Only)

1 DISPLAY REMAINING TIME

Press **-->** until the time remaining on the tape appears.

- The display panel shows the tape remaining time with "TMR" displayed.
- By pressing the **-->** button, you can change the display to show the counter reading (VHS deck only), time code (DV deck only), channel position*, clock time or tape remaining time (VHS deck only).

* channel position is not displayed during playback.

NOTE:

Depending on the type of tape used, there may be times when the tape remaining time reading may not appear right away, or is not correct. "TMR" may sometimes appear, or the display may blink on occasion.

Elapsed Recording Time Indication (VHS Deck Only)

You can check the exact time of a recording.

1 SET COUNTER DISPLAY

Press **-->** until a counter reading appears on the display panel.

2 RESET COUNTER

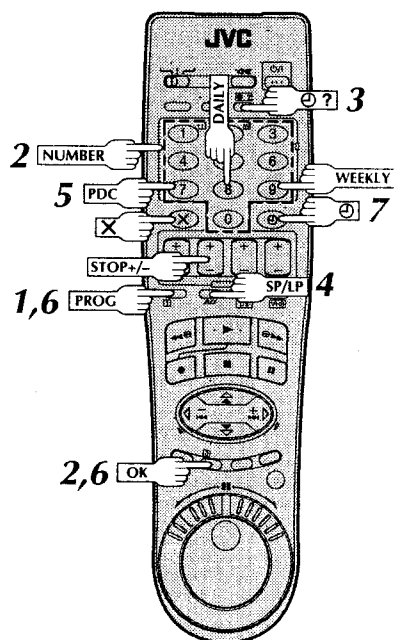
Press **0000** before starting recording or playback.

- The counter is reset to "0:00:00" and shows the exact elapsed time as the tape runs.

VIDEO Plus+ Timer Programming

Before performing VIDEO Plus+ Timer Programming:

- Make sure that the recorder's built-in clock is set properly.
- Select the recording deck by pressing VHS or DV.
- Insert a VHS (or S-VHS) cassette with the safety tab in place, or a Mini DV cassette with the erase protection switch set to "REC". The recorder will come on automatically.
- Turn on the TV and select the AV mode.



With VIDEO Plus+, timer programming is greatly simplified because each TV programme has a corresponding code number which your recorder is able to recognise.

1 ACCESS VIDEO PLUS+ SCREEN

Press **PROG**.

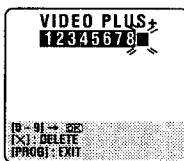


The front display panel looks like this:



2 ENTER PLUSCODE NUMBER

Press the **NUMBER** keys to enter the PlusCode number of the programme you wish to record.



- If you make a mistake, press **X** and input the correct number.

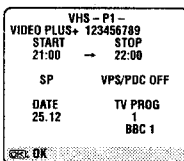
The PlusCode number you enter appears on the front display panel:



The display panel shows only a 4-digit number.

3 ACCESS VIDEO PLUS+ PROGRAM SCREEN

Press **OK**, and the VIDEO Plus+ Program screen appears (if you're just starting out, "P1" appears).



The display panel shows the programme start time. Pressing **?** changes the display to the programme stop time, then the date and preset position.



IMPORTANT

Make sure the preset position number you wish to record is displayed; if not, see "VIDEO Plus+ Setup" on page 70 and set the Guide Program number for that PlusCode number correctly.

- If the number you entered is invalid, "ERROR" appears on the screen and "Err" appears on the display panel. Press **X** and input a valid PlusCode number.
- If the "GUIDE PROG SET" screen appears, see "ATTENTION - Regarding Guide Program Number Set" on page 19.

4 SET TAPE SPEED

Press **SP/LP** (**///**) to set the tape speed.

5 SET PDC MODE

Press **PDC** to select "ON" or "OFF".
If "VPS/PDC ON" is displayed on the screen or "VPS/PDC" is lit on the display panel, PDC is set to ON.
If "VPS/PDC OFF" is displayed on the screen or "VPS/PDC" is not lit on the display panel, PDC is set to OFF.
If "PDC Recording" in the column below.

- VPS (Video Programme System) recording is not currently available in the U.K. and not possible with this recorder.

6 RETURN TO NORMAL SCREEN

Press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the screen for about 5 seconds, then normal screen appears.

- Repeat steps 1 - 6 for each additional programme.

7 ENGAGE RECORDER'S TIMER MODE

Press **?** (**TIMER**). The recorder turns off automatically and **?** appears on the display panel.

- To disengage the timer, press **?** (**TIMER**) again.

NOTES:

- To Change The Stop Time...
... press **STOP +/-** after pressing **OK** in step 3. You can compensate for anticipated programme schedule delays this way.
- To Timer-Record Weekly Or Daily Serials...
... after pressing **OK** in step 3, press **WEEKLY** (NUMBER key "9") for weekly serials or **DAILY** (NUMBER key "8") for daily serials (Monday - Friday). Either "WEEKLY" or "DAILY" appears on the screen. Pressing the button again makes the corresponding indication disappear.
- You can programme the VHS deck and the DV deck to timer-record as many as 6 programmes each. If you try to programme each deck to record a seventh, "PROGRAM FULL" appears on screen and "FULL" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (see pg. 22).
- It is not possible to timer-record a TV programme with a PlusCode number which starts with "0".
- It is not possible to timer-record the same programme on both the VHS deck and the DV deck simultaneously.
- If the times that are programmed for recording on the DV deck and on the VHS deck overlap, the earlier start time takes precedence. If the start times are the same, the VHS deck takes precedence.

PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) is a service designed to assure safe, accurate timer recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over the advertised times which you may have preset into the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed from what has been advertised. PDC is currently available nationally on BBC1, BBC2, Ch.4 and Ch.5, except from a few small relay transmitters. Ch.3 operates a PDC service in some areas. All channels intend to offer this service in due course. Check your TV programme listing guide for latest information. If the channel you intend to record does not offer a PDC service your recorder will not start recording if PDC has been selected. Be sure to set PDC to "OFF" if PDC is not available on your selected channel (see step 5 above).

NOTES:

- PDC recording is also possible when a satellite receiver or a cable system is connected to AV2 IN/DECODER on your recorder.
- PDC recording is also possible via the AV1 IN/OUT connector.

Satellite Receiver Users

- To timer-record a satellite broadcast using VIDEO Plus+:
- 1 Set "AV2 SELECT" to the appropriate mode. (see pg. 48)
 - 2 Perform steps 1 - 7.
 - 3 Set the satellite receiver to the appropriate channel before the selected programme begins.
 - 4 Leave the satellite receiver's power on.

ATTENTION

Regarding Guide Program Number Set

"GUIDE PROG SET" appears after performing step 3 if the Guide Program number for the PlusCode number you entered has not been set.

- Press the **NUMBER** keys or **Δ/V** to input the preset position number on which your recorder receives that station, then press **OK** or **▷** to set the Guide Program Number. The VIDEO Plus+ Program screen appears.



(Ex.) To timer-record a BBC2 programme with VIDEO Plus+.
* If your recorder receives BBC2 on the preset position 2, press **OK** or **▷** after entering "2".

Timer Warning

If you have programmed your recorder to timer-record a programme or a series of programmes, a warning appears on the screen to tell you that the recording is due to start in 5 minutes.

- WARNING -
TIMER RECORDING
TO START SOON
[X]

NOTES:

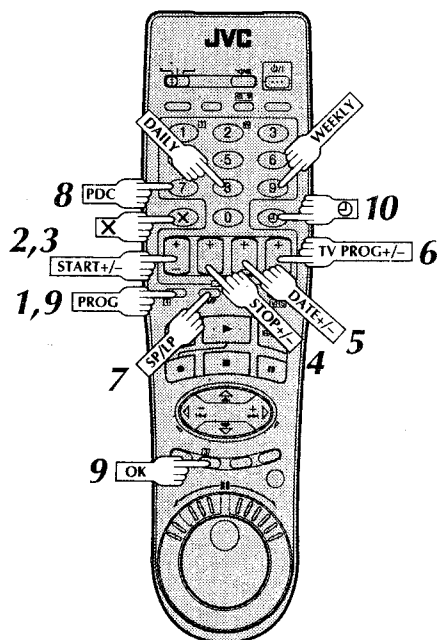
- The warning only appears if you're not in the Timer mode at the time.
- If this recorder is being used as the player for tape dubbing, the warning screen will be recorded on the tape in the other video recorder.

The warning blinks for the entire 5 minutes leading up to the start of timer recording. To clear the display, press **X**.

Express Timer Programming

Before performing Express Timer Programming:

- Make sure that the recorder's built-in clock is set properly.
- Select the recording deck by pressing **VHS** or **DV**.
- Insert a VHS (or S-VHS) cassette with the safety tab in place, or a Mini DV cassette with the erase protection switch set to "REC". The recorder will come on automatically.
- Turn on the TV and select the AV mode.



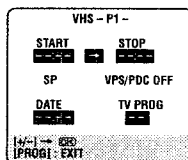
If you don't know the PlusCode number for the programme you wish to record, use the following procedure to set your recorder to timer-record the programme.

1 ACCESS VIDEO PLUS+ SCREEN

Press **PROG**.

2 ACCESS PROGRAMME SCREEN

Press **START +/-**. (If you're just starting out, "P1" appears.)



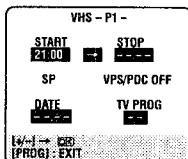
The front display panel looks like this:

3 ENTER PROGRAMME START TIME

Press **START +/-** to enter the time you want recording to start.

- Press and hold **START +/-** to move in 30-minute increments, or press and release repeatedly to move 1 minute at a time.

The front display panel looks like this:



4 ENTER PROGRAMME STOP TIME

Press **STOP +/-** to enter the time you want recording to stop.

- Press and hold **STOP +/-** to move in 30-minute increments, or press and release repeatedly to move 1 minute at a time.

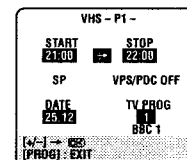
5 ENTER PROGRAMME DATE

Press **DATE +/-** to enter the date on which you wish to record. (The current date first appears on screen. The date you enter will appear in its place.)

6

ENTER PRESET POSITION

Press **TV PROG +/-** to enter the preset position corresponding to the broadcasting station you wish to record.



7

SET TAPE SPEED

Press **SP/LP (///)** to set the tape speed.

8

SET PDC MODE

Press **PDC** to select "ON" or "OFF".

If "VPS/PDC ON" is displayed on the screen or "VPS/PDC" is lit on the display panel, PDC is set to ON. If "VPS/PDC OFF" is displayed on the screen or "VPS/PDC" is not lit on the display panel, PDC is set to OFF. (PDC Recording) in the right column.

- VPS (Video Programme System) recording is not currently available in the U.K. and not possible with this recorder.

9

RETURN TO NORMAL SCREEN

After confirming all information is correct, press **PROG** or **OK**. "PROGRAM COMPLETED" appears on the screen for about 5 seconds, then normal screen appears.

- Repeat steps 1 - 9 for each additional programme.

10

ENGAGE RECORDER'S TIMER MODE

Press **⊖ (TIMER)**. The recorder turns off automatically and **⊖** appears on the display panel.

- To disengage the timer, press **⊖ (TIMER)** again.

To Timer-Record Weekly Or Daily Serials . . .

. . . anytime during steps 2 through 9, press **WEEKLY** (NUMBER key "9") for weekly serials or **DAILY** (NUMBER key "8") for daily serials (Monday - Friday). Either "WEEKLY" or "DAILY" appears on the screen. Pressing the button again makes the corresponding indication disappear.

NOTE:

You can programme the VHS deck and the DV deck to timer-record as many as 6 programmes each. If you try to programme each deck to record a seventh, "PROGRAM FULL" appears on screen and "FULL" appears on the front display panel. To record the extra programme, you must first cancel any unnecessary programmes (pg. 22).

Satellite Receiver Users

To timer-record a satellite broadcast using Express Timer Programming:

- 1 Set "AV2 SELECT" to the appropriate mode. (pg. 48)
- 2 Perform steps 1 - 10. Enter "L-2" for the preset position in step 6.
- 3 Set the satellite receiver to the appropriate channel before the selected programme begins.
- 4 Leave the satellite receiver's power on.

PDC Recording

Now available from some TV stations, PDC (Programme Delivery Control) is a service designed to assure safe, accurate timer recording. With this system, special code signals are transmitted together with the audio/video signals. These code signals control your video recorder and have precedence over the advertised times which you may have preset into the timer. This means that your recorder will start and stop recording when the preset TV programmes actually start and end — even if the broadcast time of a preset TV programme is changed from what has been advertised. PDC is currently available nationally on BBC1, BBC2, Ch.4 and Ch.5, except from a few small relay transmitters. Ch.3 operates a PDC service in some areas. All channels intend to offer this service in due course. Check your TV programme listing guide for latest information. If the channel you intend to record does not offer a PDC service your recorder will not start recording if PDC has been selected. Be sure to set PDC to "OFF" if PDC is not available on your selected channel. (pg. step 8 in the left column).

NOTES:

- Set the start time (PDC time) exactly as advertised in the TV listing. A different time than advertised will result in no recording.
- PDC recording is also possible when a satellite receiver or a cable system is connected to AV2 IN/DECODER on your recorder.
- PDC recording is also possible via the AV1 IN/OUT connector.

Timer Warning

If you have programmed your recorder to timer-record a programme or a series of programmes, a warning appears on the screen to tell you that the recording is due to start in 5 minutes.

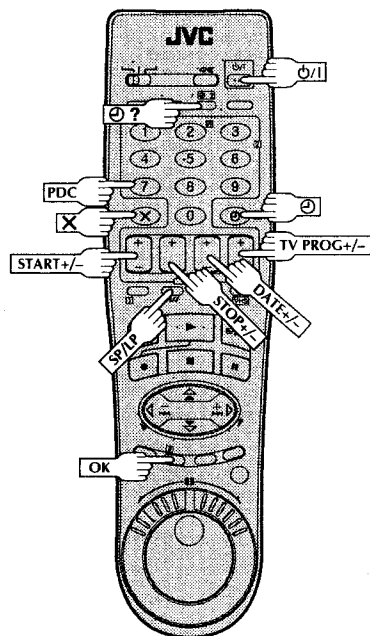
-WARNING-
TIMER RECORDING
TO START SOON
[X]

NOTES:

- The warning only appears if you're not in the Timer mode at the time.
- If this recorder is being used as the player for tape dubbing, the warning screen will be recorded on the tape in the other video recorder.

The warning blinks for the entire 5 minutes leading up to the start of timer recording. To clear the display, press **X**.

Check, Cancel And Replace Programmes



1 DISENGAGE TIMER MODE

Press $\odot$, then press $\odot/1$.

2 ACCESS PROGRAMME CHECK SCREEN/DISPLAY

Press $\odot$?

- The programme check screen or display appears for the deck (VHS or DV) being selected.

PR	START	STOP	CH	DATE
1	8:00	10:00	3	24.12
2	10:00	10:45	2	25.12
3	11:30	13:00	1	25.12
4				
5				
6				

10:11: NEXT



3 ACCESS PROGRAMME SCREEN/DISPLAY

Press $\odot$? again to check more information. Each time you press $\odot$?, the next programme's information appears.

VHS - P1 -	
START 8:00	STOP 10:00
SP	VPS/PDC OFF
DATE 24.12	TV PROG 3
	TV

10:11: NEXT



- The display panel shows the programme start time. Pressing **OK** changes the display to the programme stop time, then the date and the preset position.

To cancel or replace a programme...

4 CANCEL OR REPLACE A PROGRAMME

Press **X** to cancel a programme. To replace a programme, press the appropriate button: **START+/-**, **STOP+/-**, **DATE+/-**, **TV PROG+/-**, **SP/LP** (///), **PDC**.

5 RETURN TO NORMAL SCREEN/DISPLAY

Press $\odot$? as many times as necessary. If there are still some programmes to be recorded, go on to step 6.

6 RETURN TO TIMER MODE

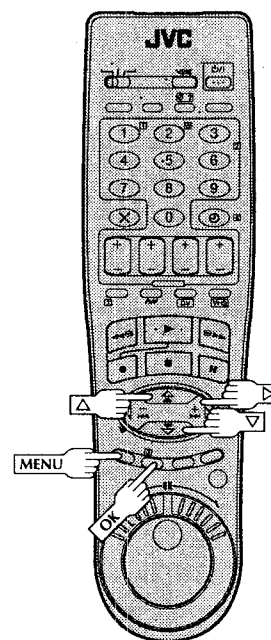
Press $\odot$.

NOTE:

You can also check the programmes on the display panel even if the recorder's power is off (unless the recorder is in the Power Save mode E pg. 53) or the recorder is in the Timer mode; however, it is not possible to cancel or replace the programmes.

Recording According To Tape Type

Turn on the TV and select the AV mode.



S-VHS (Super VHS) and VHS (VHS Deck Only)

Your recorder can record in either S-VHS or VHS.

To record in S-VHS:

Perform the steps 1 - 4 below to set "S-VHS" to "AUTO". Then, insert a cassette marked "S-VHS", the S-VHS indicator will light on the display panel. The S-VHS recording mode will be selected.

To record in VHS:

Insert a cassette marked "VHS". The VHS recording mode will be automatically selected regardless of the S-VHS mode setting.

To record in VHS on an S-VHS cassette:

Insert the cassette marked "S-VHS". The S-VHS indicator will light on the display panel. Then, perform the steps 1 - 4 below to set the "S-VHS" to "OFF"; the S-VHS indicator will go out. The VHS recording mode will be selected.

ACCESS MAIN MENU SCREEN

Press **MENU**.

ACCESS VHS MODE SET SCREEN

Move the highlight bar (pointer) to "VHS MODE SET" by pressing Δ or ∇ , then press **OK** or **P**.

MAIN MENU	
MODE SET	
VHS MODE SET	
DV MODE SET	
AUTO CH SET	
MANUAL CH SET	
INITIAL SET	

[Δ] ∇ : GOTO
[MENU] : EXIT

SELECT S-VHS MODE

Move the highlight (pointer) to "S-VHS" by pressing Δ or ∇ , then press **OK** or **P** to select "AUTO" or "OFF".

VHS MODE SET	
S. E. S. T.	ON
PICTURE CONTROL	AUTO
AUTO SP-LP TIMER	OFF
DIGITAL 3R	ON
S-VHS	AUTO
DIGITAL YBC/NH	ON
L-3 AV	VIDEO

[Δ] ∇ : GOTO
[MENU] : EXIT

RETURN TO NORMAL SCREEN

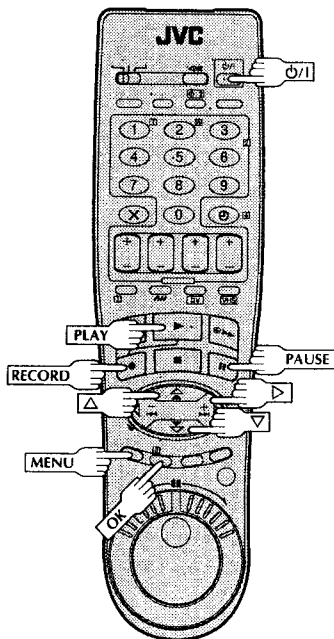
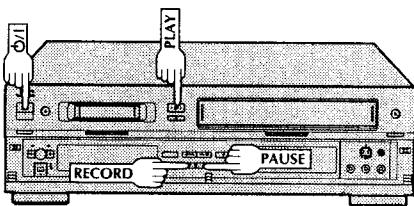
Press **MENU**.

NOTE:

When playing back a tape that has been recorded in S-VHS, the S-VHS indicator lights on the display panel regardless of the "S-VHS" mode setting.

Playback/ Recording According To Tape Charac- teristics

Turn on the TV and select the AV mode.



B.E.S.T. Picture System (VHS Deck Only)

The B.E.S.T. (Biconditional Equalised Signal Tracking) system checks the condition of the tape in use during recording and playback, and compensates to provide the highest-possible recording and playback pictures. The default setting for both recording and playback is "ON".

1 TURN ON THE RECORDER

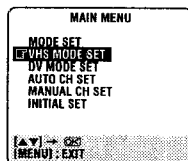
Press ON .

2 ACCESS MAIN MENU SCREEN

Press MENU.

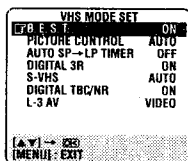
3 ACCESS VHS MODE SET SCREEN

Press Δ to move the highlight bar (pointer) to "VHS MODE SET", then press OK or $\triangleright$.



4 SELECT B.E.S.T. MODE

Press Δ to move the highlight bar (pointer) to "B.E.S.T.", then press OK or $\triangleright$ to set to "ON" or "OFF".



5 RETURN TO NORMAL SCREEN

Press MENU.

Recording

START RECORDING

Press and hold **RECORD** and press **PLAY** on the remote, or press **RECORD** on the recorder.

DURING B.E.S.T.



B.E.S.T. COMPLETE



- The recorder spends approximately 7 seconds assessing the condition of the tape, then begins recording.

NOTES:

- The B.E.S.T. system works for both SP and LP modes only after a tape has been inserted and the Record mode is first initiated. It does not work during recording.
- In the case of timer recording, the B.E.S.T. system works before recording is initiated.
- Once the cassette is ejected, the B.E.S.T. data is cancelled. The next time the cassette is used for recording, B.E.S.T. is re-performed.
- Pressing the recorder's **RECORD** button while "BEST" is displayed does not start Instant Timer Recording (pg. 17).

ATTENTION

Since the B.E.S.T. system works before recording actually starts, there is a delay of approximately 7 seconds after **RECORD** and **PLAY** on the remote are pressed, or **RECORD** on the recorder is pressed. To make sure you record the desired scene or programme in its entirety, first perform the following steps:

- Press and hold **PAUSE** and press **RECORD** to engage the **RECORD PAUSE** mode.
 - The recorder then automatically checks the condition of the tape and, after approximately 7 seconds, re-enters **RECORD PAUSE**.
- Press **PLAY** when you are ready to start recording.
 - If you want to bypass the B.E.S.T. system and begin recording immediately, set "B.E.S.T." to "OFF" in step 4 on page 24.

Playback

The recorder assesses the quality of the tape once you initiate playback.

START PLAYBACK

Press **PLAY**.

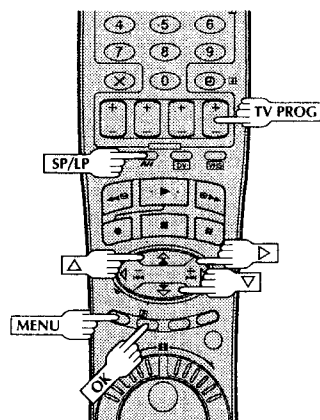


- The recorder adjusts the playback picture quality based on the quality of the tape in use.
- B.E.S.T. is active during Auto Tracking. "BEST" appears blinking on the recorder's display panel.

NOTES:

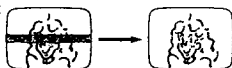
- When watching a tape recorded with "B.E.S.T." set to "ON", it is recommended that you leave B.E.S.T. on during playback as well.
- When watching a rental tape or one recorded on another video recorder, or when using this recorder as the player for editing, set B.E.S.T. to your preference by performing steps 1 through 5 on page 24.
- "BEST" only appears at the beginning of automatic tracking. Even though it doesn't appear after that, the B.E.S.T. function is operative.

Playback Picture Adjustment



Manual Tracking (VHS Deck Only)

Your video recorder is equipped with automatic tracking control. For most tapes this will automatically adjust the tracking to suit the particular tape you are playing. In some circumstances it may be necessary to make manual tracking adjustments. This is usually only associated with old or worn tapes or recordings made on old or worn recorders. If the automatic tracking control fails to operate correctly you will see noise bars across the picture as shown on the left below. To correct this you can override the automatic control and adjust the tracking manually by pressing the **TV PROG** buttons.



1

1 OVERRIDE AUTOMATIC TRACKING

Press **TV PROG** on the remote to engage manual tracking.

2

2 ADJUST TRACKING MANUALLY

Press **TV PROG** + or - to adjust tracking.

3

3 RETURN TO AUTOMATIC TRACKING

Press **TV PROG** on the remote to re-engage automatic tracking.

NOTE:

When a new tape is inserted, the recorder returns to the automatic tracking mode automatically.

Digital TBC/NR (VHS Deck Only)

Your video recorder is equipped with a Digital TBC (Time Base Corrector) that removes jitter from fluctuating video signals to deliver a stable picture even with old tapes and rental cassettes. The on/off of Digital 3-DNR (Noise Reduction) which cuts noise and enables clear picture reproduction is also linked to this function.

* The default setting is "ON".

We recommend that you use the Digital TBC feature when...

... playing back a tape recorded on a camcorder.

... playing back a tape repeatedly used.

... using this video recorder as the player for editing.

1

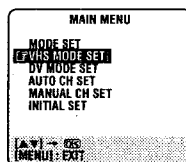
1 ACCESS MAIN MENU SCREEN

Press **MENU**.

2

2 ACCESS VHS MODE SET SCREEN

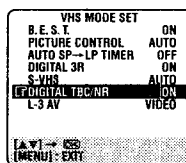
Move the highlight bar (pointer) to "VHS MODE SET" by pressing Δ or ∇ , then press **OK** or **▷**.



3

3 SELECT DIGITAL TBC/NR SET MODE

Move the highlight bar (pointer) to "DIGITAL TBC/NR" by pressing Δ or ∇ , then press **OK** or **▷** to set to "ON".



4

4 RETURN TO NORMAL SCREEN

Press **MENU**.

NOTES:

- If you play back a tape recorded under poor TV reception condition, there may be cases where the picture becomes more stable with "Digital TBC/NR" set to "OFF".
- When "Digital TBC/NR" is set to "ON", if you play back a tape where certain types of signals are recorded (using a PC or some character generators), the playback picture may be distorted. If this is the case, set "Digital TBC/NR" to "OFF".

Digital 3R (VHS Deck Only)

Digital 3R picture system applies edge correction to the luminance signal to enhance detail.

1

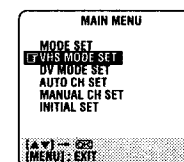
ACCESS MAIN MENU SCREEN

Press **MENU**.

2

ACCESS VHS MODE SET SCREEN

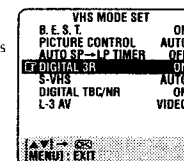
Move the highlight bar (pointer) to "VHS MODE SET" by pressing Δ or ∇ , then press **OK** or **▷**.



3

SELECT DIGITAL 3R SET MODE

Move the highlight bar (pointer) to "DIGITAL 3R" by pressing Δ or ∇ , then press **OK** or **▷** to set to "ON".



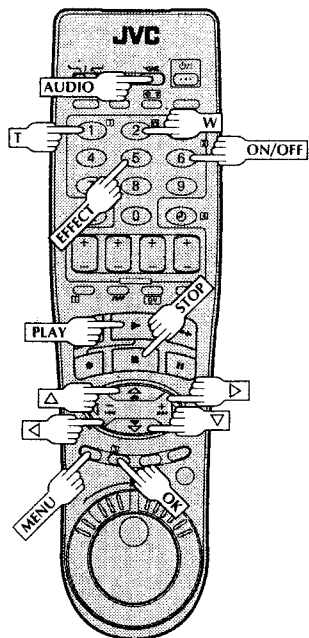
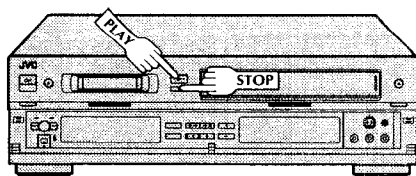
4

RETURN TO NORMAL SCREEN

Press **MENU**.

NOTES:

- Normally it is recommendable to keep "DIGITAL 3R" set to "ON".
- Depending on the type of tape being used, picture quality may sometimes be better with "DIGITAL 3R" set to "OFF".



Zoom (DV Deck Only)

This function allows you to zoom in on a portion of the screen during playback.

1 ZOOM DURING PLAYBACK

Press **T** to zoom in on an image during playback. Press **W** to zoom out.

2 MOVE SCREEN

After zooming in, use $\Delta \nabla \triangleleft \triangleright$ to move the screen up, down, left, or right.

3 STOP ZOOM

To leave the zoom view and return to the normal screen, press **W**. Another method is to press **STOP**, and then press **PLAY**.

Playback Effects (DV Deck Only)

This function allows you to temporarily insert playback effects on the screen during playback. Because these effects are not recorded on the tape, you will only see the original image when you play back the tape next time.

1 ACTIVATE PLAYBACK EFFECT

Press **EFFECT** repeatedly (within two seconds) to select the desired playback effect (refer to the chart below).

1	--
2	CLASSIC FILM
3	B/W
4	SEPIA
5	STROBE
6	VIDEO ECHO

2 STOP PLAYBACK EFFECT

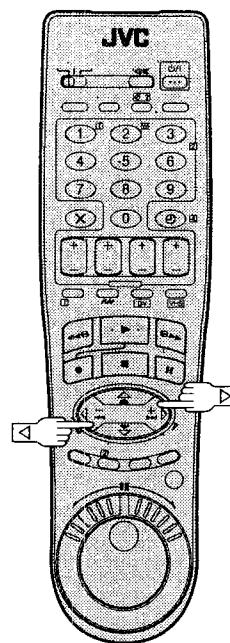
Press **ON/OFF** to turn off the playback effect. Pressing **ON/OFF** again causes the selected playback effect to re-appear.

MENU ICON	EFFECT
--	Select when you do not want to use any playback effects.
CLASSIC FILM	Select when you want to add a movie-like effect to the playback by omitting frames.
B/W MONOTONE	Select when you want the playback to be in black & white.
SEPIA	Select when you want to add a sepia tone to the playback so that it resembles an old photograph.
STROBE	Select when you want to add a strobe light effect so that the playback resembles a series of fast, discrete still images.
VIDEO ECHO	Select when you want to add ghosting to the video to create a dream-like effect.

NOTE:

Playback Effect does not work when dubbing from the VHS deck to the DV deck.

Looking For The Scene You Want

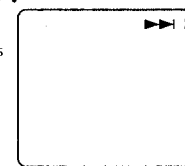


Index Search (VHS Deck Only)

Your recorder automatically marks index codes at the beginning of each recording. This function gives you quick access to any one of 9 index codes in either direction.

NOTE:

Before starting, make sure the recorder is in the Stop mode.

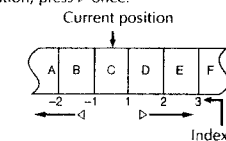


1 ACTIVATE INDEX SEARCH

Press $\triangleleft$ or $\triangleright$ (or $\triangleleft\triangleleft$ or $\triangleright\triangleright$). " $\triangleleft\triangleleft$ 1" or " $\triangleright\triangleright$ 1" is displayed on screen and search begins in the corresponding direction.

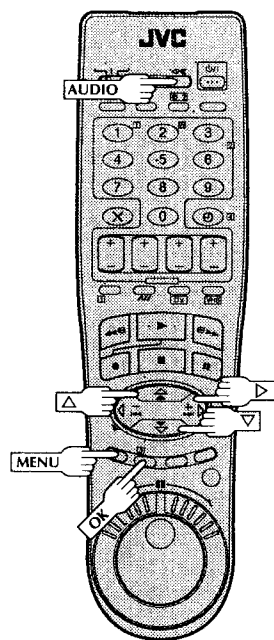
• To access index codes 2 through 9, press $\triangleleft$ or $\triangleright$ repeatedly until the correct index number is displayed.

Ex.: To locate the beginning of B from the current position, press $\triangleleft$ twice.
To locate the beginning of D from the current position, press $\triangleright$ once.



• When the specified index code is located, playback begins automatically.

Selecting The Sound You Want



Soundtrack Selection (VHS Deck)

The VHS recording deck is capable of recording three soundtracks (HI-FI L, HI-FI R and NORM) and will play back the one you select.

During Playback*

Pressing **AUDIO** on the remote control changes the soundtrack being played back as follows:

TRACK	USE
On-Screen Display	
HI FI L R	For Hi-Fi stereo tapes
HI FI L	For main audio of Bilingual tapes
HI FI R	For sub audio of Bilingual tapes
NORM	For audio-dubbed tapes
HI FI NORM	For audio-dubbed tapes

NOTES:

- "HI FI L R" should normally be selected. In this mode, Hi-Fi stereo tapes are played back in stereo, and the normal audio track is played back automatically for tapes with only normal audio.
- For instructions on recording stereo and bilingual programmes, refer to page 32.
- Bilingual programmes are not currently broadcast in the U.K.
- "O.S.D." must be set to "ON" or the on-screen displays will not appear (see pg. 52).

Soundtrack Selection (DV Deck)

The DV recording deck is capable of recording two soundtracks (L and R) and will play back the one you select.

During Playback

Pressing **AUDIO** on the remote control changes the soundtrack being played back as follows:

TRACK	USE
On-Screen Display	
L R	For stereo or Bilingual tapes
L	For main audio of Bilingual tapes
R	For sub audio of Bilingual tapes

NOTE:

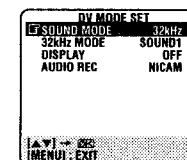
- Bilingual programmes are not currently broadcast in the U.K.

Sound Mode Selection (DV Deck)

- 1 Press **MENU** to access the Main Menu screen.
- 2 Move the highlight bar (pointer) to "DV MODE SET" by pressing Δ , then press **OK** or $\triangleright$.
- 3 Move the highlight bar (pointer) to "SOUND MODE" by pressing Δ , then press **OK** or $\triangleright$ to select "32kHz" or "48kHz".
- 4 Press **MENU** to return to the normal screen.

NOTE:

Set "SOUND MODE" to "32kHz" at the original recording on a Mini DV tape, if you wish to perform Audio Dubbing later.



32kHz Mode Setting (Audio-dubbed Mini DV Tape)

- 1 Press **MENU** to access the Main Menu screen.
- 2 Move the highlight bar (pointer) to "DV MODE SET" by pressing Δ , then press **OK** or $\triangleright$.
- 3 Move the highlight bar (pointer) to "32kHz MODE" by pressing Δ , then press **OK** or $\triangleright$ to select "SOUND1", "SOUND2" or "FULL SOUND".
- 4 Press **MENU** to return to the normal screen.

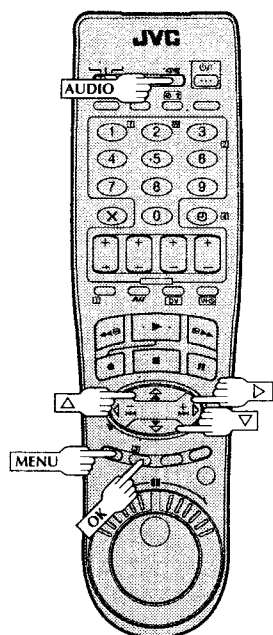
32kHz MODE	SOUND YOU HEAR
SOUND1	Original recorded sound
SOUND2	Audio-dubbed sound
FULL SOUND	Original recorded sound and Audio-dubbed sound



NOTES:

When "32kHz MODE" is set to "FULL SOUND":

- For bilingual tapes, both the main and sub audio will be audible.
- To select just the main audio or just the sub audio of Bilingual tapes, set "32kHz MODE" to "SOUND1".



Receiving NICAM Stereo And Bilingual Programmes

Your recorder is equipped with a Digital stereo sound decoder (NICAM), making reception of stereo and bilingual broadcasts possible.

When the recorder is tuned to a different station, the type of broadcast being received will be displayed on the TV screen for a few seconds.

Type of Broadcast Being Received	On-screen Display
Regular Monaural	(none)
NICAM Stereo	ST NICAM
NICAM Bilingual	BIL NICAM
NICAM Monaural	NICAM

- To listen to a stereo programme, press **AUDIO** until "HI FI L R" appears on the screen.
- To listen to a bilingual programme, press **AUDIO** until "HI FI L R" or "HI FI L R" appears on the screen (as required).
- To listen to the Standard (regular monaural) audio while receiving a NICAM broadcast, press **AUDIO** until "NORM" appears on the screen.

NOTE:

"O.S.D." must be set to "ON" or the on-screen displays will not appear (see pg. 52).

To Record NICAM Stereo And Bilingual Programmes (Only For The Users In Eastern Europe)

- VHS deck**
The NICAM audio programme will be recorded on the Hi-Fi audio track, and the Standard audio programme on the normal audio track.
- DV deck** (See "AUDIO REC Mode Setting" below.)

NOTES:

- If the quality of stereo sound being received is poor, the broadcast will be received in monaural with better quality.
- Before playing back a programme recorded in stereo, or a bilingual programme, refer to "Soundtrack Selection" (pg. 30, 31).

AUDIO REC Mode Setting

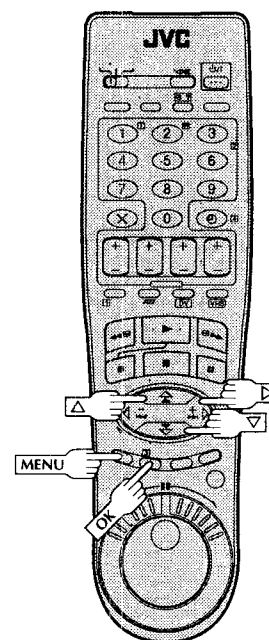
- Press **MENU** to access the Main Menu screen.
- Move the highlight bar (pointer) to "DV MODE SET" by pressing Δ , then press **OK** or $\triangleright$.
- Move the highlight bar (pointer) to "AUDIO REC" by pressing Δ , then press **OK** or $\triangleright$ to select "NICAM" or "MONO".
- Press **MENU** to return to the normal screen.



- When "AUDIO REC" is set to "NICAM", the NICAM audio programme will be recorded on the audio track.
- When "AUDIO REC" is set to "MONO", the Standard (monaural) audio program will be recorded on the audio track.

Minimizing Picture Degradation While Editing

Turn on the TV and select the AV mode.



Advantages Of S-VHS Video Recorders

You can edit from VHS to S-VHS, S-VHS to VHS, or, from S-VHS to S-VHS.

- From VHS to S-VHS: Record VHS playback signals in the S-VHS mode. Although the picture quality is inherently limited by that of the original, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to VHS: Because the picture quality of the source material is very high, the edited tape has better picture quality than those made by VHS-to-VHS editing.
- From S-VHS to S-VHS: All signals will be transferred with minimum degradation.

Picture Control (VHS Deck Only)

This feature helps you to adjust the playback picture quality according to your preference. *The default setting is "AUTO."

ACCESS MAIN MENU SCREEN

Press **MENU**.

ACCESS VHS MODE SET SCREEN

Move the highlighted bar (pointer) to "VHS MODE SET" by pressing Δ , then press **OK** or $\triangleright$.

SELECT PICTURE CONTROL SET MODE

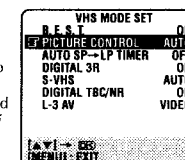
Move the highlighted bar (pointer) to "PICTURE CONTROL" by pressing Δ , then press **OK** or $\triangleright$ to select the desired mode.

AUTO: Provides optimised picture benefits of B.E.S.T. Picture System. Normally select **AUTO**.

EDIT: Minimizes picture degradation during editing (recording and playback).

SOFT: Reduces image coarseness when viewing overplayed tapes containing a lot of noise.

SHARP: Clearer, sharper-edged picture when viewing images with lots of flat, same-coloured surfaces such as cartoons.



NOTES:

- When you select **EDIT**, **SOFT** or **SHARP**, the selected mode will not change until you select again.
- When you select **EDIT** to dub tapes, be sure to select **AUTO** after you finish dubbing the tapes.

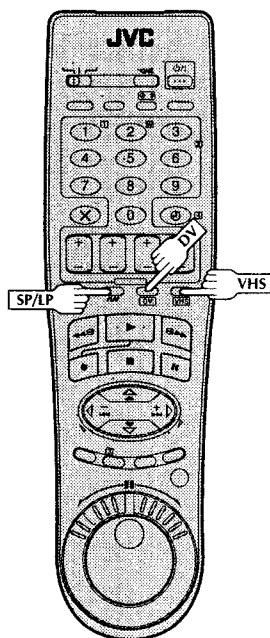
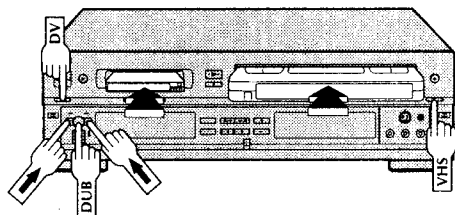
RETURN TO NORMAL SCREEN

Press **MENU**.

NOTES:

- When **B.E.S.T.** is **OFF**, "PICTURE CONTROL" switches automatically from **AUTO** to **NORM**.
- Select **EDIT** when you are dubbing tapes. Refer to page 42.

Tape Dubbing



Dubbing An Entire Cassette

Because this recorder includes both a VHS deck and a DV deck, you can easily use it for dubbing without connecting any other equipment.

1 LOAD CASSETTES

Insert a VHS (or S-VHS) cassette and a Mini DV cassette.

2 SELECT DUBBING DIRECTION

Press → when you want playback on the DV deck and recording on the VHS deck.

OR

Press ← when you want playback on the VHS deck and recording on the DV deck.

3 SET TAPE SPEED

Press VHS or DV for the recording deck, then press SP/LP (///).

4 START DUBBING

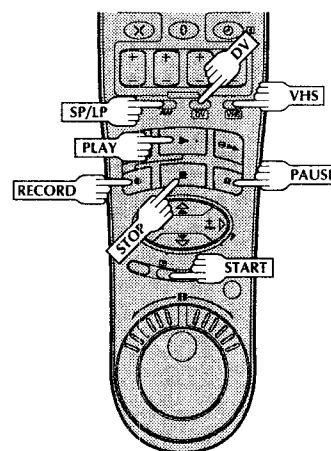
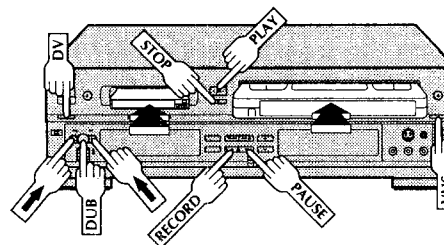
Press DUB for two seconds.

- If the tapes have not been rewound, both decks rewind automatically. The recording deck goes into Record-Pause mode, and the playback deck goes into Pause mode. When both decks have finished rewinding, dubbing begins automatically. After dubbing is completed, the decks rewind both tapes automatically and eject them. The recorder then shuts off.

NOTES:

- If you set the dubbing direction incorrectly, you could erase an important recording that you wanted to copy. We recommend conducting a test with unimportant cassettes first.
- On the cassette that you are playing (i.e., recording from) we recommend either setting the erase protection switch to "SAVE" (if the cassette is a Mini DV cassette), or breaking off the record safety tab (if the cassette is a VHS cassette).

Normal Dubbing



You can dub selected scenes on a tape, starting and stopping wherever you wish.

1 LOAD CASSETTES

Insert a VHS (or S-VHS) cassette and a Mini DV cassette.

2 SELECT DUBBING DIRECTION

Press → when you want playback on the DV deck and recording on the VHS deck.

OR

Press ← when you want playback on the VHS deck and recording on the DV deck.

3 SET TAPE SPEED

Press VHS or DV for the recording deck, then press SP/LP (///).

4 LOCATE START POINT

For the playing deck:

Press VHS or DV to select the playing deck. Press PLAY to start playback of the tape in the playing deck, and press PAUSE to pause playback when you find the point where you want to start dubbing.

For the recording deck:

Press VHS or DV to select the recording deck. Press and hold PAUSE and press RECORD so that the recording deck enters the Record-Pause mode.

5 START DUBBING

Press START.

6 PAUSE DUBBING

Press START.

7 END DUBBING

Press STOP. Then press VHS or DV to select the playing deck and press STOP.

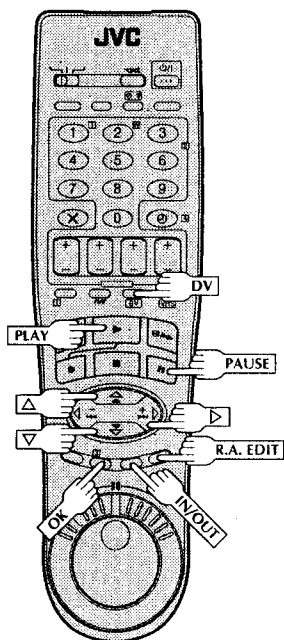
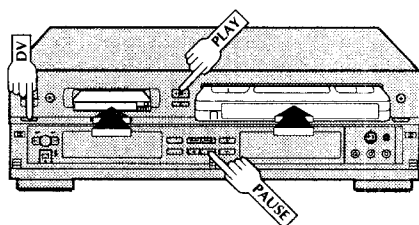
NOTES:

- There may be a discrepancy of several seconds between where you intend editing to start, and where it actually starts.
- The on-screen display during the operation or dubbing is not recorded.
- When dubbing from the VHS deck to the DV deck, also set "SOUND MODE" to the appropriate mode (pg. 31).

When dubbing from the DV deck to the VHS deck:

- You can record the date and time by setting "DISPLAY" to "ON" (pg. 14).
- You can also insert playback effects (pg. 28).
- When dubbing a Mini DV tape that was produced by audio dubbing, you need to set "32kHz MODE" to the appropriate mode before playing the tape (pg. 31).

Random Assemble Editing



64-program Editing Memory (8 programmes x 8 scenes)

By using the Random Assemble Editing function, you can select up to 8 scenes from a previously recorded Mini DV cassette and automatically dub them onto a VHS cassette. You can also insert Fade/Wipe effects between scenes (pg. 39), and make changes to the video by using Playback Effects (pg. 28).

Random Assemble Editing is possible only when dubbing from the DV deck to the VHS deck.

LOAD CASSETTES

1 Insert a VHS (or S-VHS) cassette and a Mini DV cassette.

SELECT DV DECK

2 Press DV.

ACCESS R.A. EDIT SCREEN

3 Press R.A. EDIT. R.A. EDIT screen will appear.

SELECT PROGRAMME

4 Press Δ / ∇ to move the highlight bar (pointer) to the programme number you want to edit, then press OK or $\triangleright$.

- To remove a programme from the R.A. EDIT screen, select the programme number, then press X for more than 2 seconds.

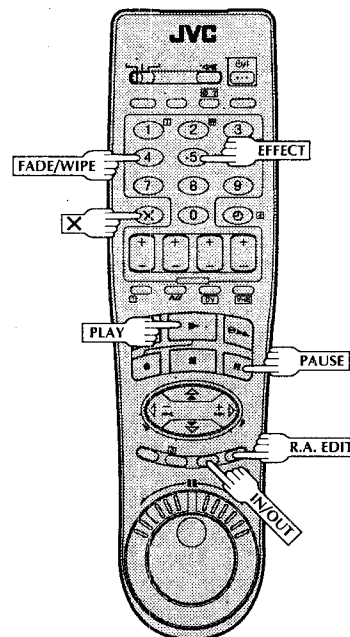
Programme	IN	OUT	MODE
P1	---	---	---
P2	---	---	---
P3	---	---	---
P4	---	---	---
P5	---	---	---
P6	---	---	---
P7	---	---	---
P8	---	---	---

LOCATE EDIT-IN POINT

5 Press PLAY to start playback and find the point from where you want the edited scene to begin, then press PAUSE. Then press IN/OUT. The edit-in point appears on the screen.

P1	IN	OUT	MODE
1	---	---	---
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---

TC TOTAL



LOCATE EDIT-OUT POINT

6 Press PLAY to start playback. Find the point where you want the edited scene to end, then press PAUSE. Then, press IN/OUT. The edit-out point appears on the screen.

P1	IN	OUT	MODE
1	0:31:02	0:54:00	P1
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---

TC 0:00:10
TOTAL 0:22:58

USE FADE/WIPE EFFECT ON SCENE TRANSITION (IF NECESSARY)

7 Press FADE/WIPE.

- Cycle through the effects by pressing repeatedly, and stop when the one you want is displayed.
- If you select a Fade/Wipe effect for an Edit-Out point, the effect is automatically applied to the following Edit-In point.

P1	IN	OUT	MODE
1	0:31:02	0:54:00	P1
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---

TC 0:00:10
TOTAL 0:22:58

- You can't use a Picture Wipe/Dissolve at the end of the last scene.
- When you use Fade/Wipe effects, that time is included in the total time (this does not apply to Picture Wipe/Dissolve).

USE PLAYBACK EFFECT (IF NECESSARY)

8 Press EFFECT.

- Cycle through the effects by pressing repeatedly, and stop when the one you want is displayed.
- You can use Classic Film, Monotone, Sepia, Strobe or Video Echo effects. (pg. 28)
- You can also select $\square$ so that the date and time are displayed.

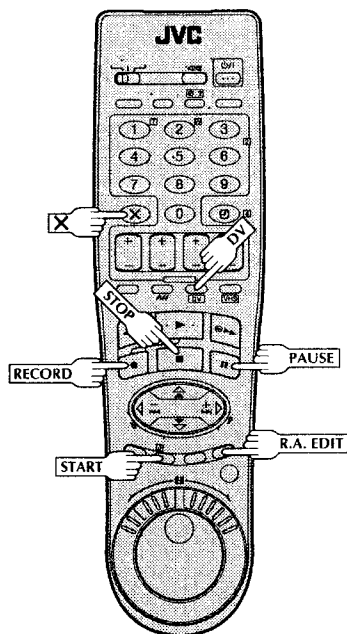
P1	IN	OUT	MODE
1	0:31:02	0:54:00	P1
2	---	---	---
3	---	---	---
4	---	---	---
5	---	---	---
6	---	---	---
7	---	---	---
8	---	---	---

TC 0:00:10
TOTAL 0:22:58

REGISTER ADDITIONAL SCENES

9 Repeat steps 5 - 8.

- To change previously registered points, press X. The registered points disappear, one at a time, from the most recently registered point.
- If you're not using Fade/Wipe or Playback Effects, repeat steps 5 and 6 only.



10

PREPARE SOURCE TAPE

Rewind the tape in the DV deck to the beginning of the scene you want to edit.

11

ENGAGE VHS DECK TO RECORD-PAUSE MODE

Press **VHS**, then press and hold **PAUSE** and press **RECORD** so that the VHS deck enters the Record-Pause mode.

12

START EDITING

Press **START**.

- When dubbing is complete, the DV deck enters the Pause mode, and the VHS deck enters its Record-Pause mode.

13

STOP EDITING

Press **STOP**. The DV deck stops playback. Press **VHS**, then press **STOP**. The VHS deck stops recording.

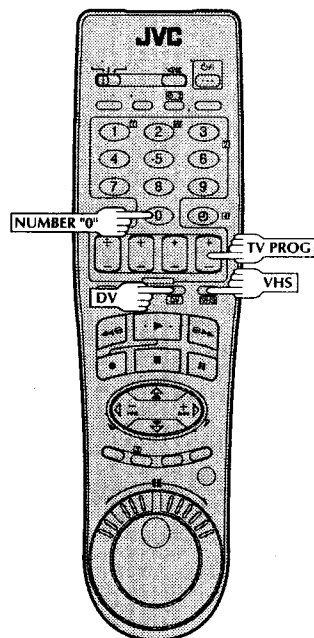
NOTES:

- When Random Assemble Editing doesn't work, press → beside the **DUB** button, then perform Random Assemble Editing again.
- To cancel the registered scene, press **X**. Each time **X** is pressed, the latest registered scene is erased.
- When the source tape has more than 2 identical time codes (pg. 14), the recorder may not find the edit-in point you chose and a malfunction may occur.
- When choosing a scene, set edit-in and edit-out points so that there's a relatively large difference between them.
- If the search time for an in-point exceeds 5 minutes, the recording deck's Record-Pause mode will be cancelled and editing will not take place.
- If there are blank portions before or after the edit-in and edit-out points, a blue-backed screen may be included in the edited version.
- Since time codes register time only as accurately as seconds, the time code total time may not match the total programme time exactly.
- To quit Random Assemble Editing while it is still in progress, press **R.A.EDIT** again to return to the **R.A.EDIT** screen. Press **R.A.EDIT** once more to return to the normal screen.
- To use Random Assemble Editing consecutively for two or more programmes, press **START** for each programme. When dubbing from another Mini DV cassette, swap the Mini DV cassettes first, and then press **START**.
- If you use the Sepia or Monotone Playback Effect, you can't use the Dissolve or Black & White Fader.
- The Classic Film or Strobe Playback Effect does not work, if you use the Picture Wipe or Dissolve.
- The Video Echo Playback Effect does not work, if you use the Fader, Picture Wipe or Dissolve.
- You can't use some of the Fade/Wipe Effects at the beginning or the end of the scene.

FADER AND WIPE MENU

MENU	EFFECT
WH FADER — WHITE	Fade in or out with a white screen.
BK FADER — BLACK	Fade in or out with a black screen.
X FADER — MOSAIC	Fade in or out with a full-screen mosaic effect.
B.W FADER — B.W	Fade in to a color screen from a black and white screen, or fade out from color to black and white.
WIPE — CORNER	Wipe in on a black screen from the upper right to the lower left corner, or wipe out from lower left to upper right, leaving a black screen.
WIPE — WINDOW	The scene starts in the centre of a black screen and wipes in toward the corners, or comes in from the corners, gradually wiping out to the centre.
WIPE — SLIDE	Wipe in from right to left, or wipe out from left to right.
WIPE — DOOR	Wipe in as the two halves of a black screen open to the left and right, revealing the scene, or wipe out and the black screen reappears from left and right to cover the scene.
WIPE — SCROLL	The scene wipes in from the bottom to the top of a black screen, or wipes out from top to bottom, leaving a black screen.
WIPE — SHUTTER	Wipe in towards the centre of a black screen from the top and bottom, or wipe out from the centre towards the top and bottom, leaving a black screen.
P DISSOLVE	The new scene gradually appears as the old one gradually disappears.
P WIPE — CORNER	The new scene wipes in over the previous one from the upper right corner to the lower left corner.
P WIPE — WINDOW	The next scene gradually wipes in from the center of the screen toward the corners, covering the previous scene.
P WIPE — SLIDE	The next scene gradually wipes in over the previous one from right to left.
P WIPE — DOOR	The previous scene wipes out from the centre to the right and left, like a door being pushed open to reveal the next scene.
P WIPE — SCROLL	The new scene wipes in over the last one from the bottom of the screen to the top.
P WIPE — SHUTTER	The new scene wipes in over the previous one from the centre towards the top and bottom of the screen.

Edit From A Camcorder



NOTES:

- All necessary cables can be obtained from your dealer.
- You can also use another video recorder as the player instead of a camcorder.
- When you select EDIT to dub tapes in step 4, be sure to select AUTO (or NORM when B.E.S.T. is set to OFF) after you finish dubbing the tapes.
- You cannot use the VHS deck to record video through the DV IN/OUT connector.
- When you are editing through the DV IN/OUT connector, the recorder will stop if the player begins playing a blank portion of tape or the signal is interrupted.

You can use a camcorder as the source player and your video recorder as the recorder. You can perform digital dubbing if you connect a device such as a camcorder which has a DV output/input connector. Because the signals are digital, there is no loss of video or audio quality as a result of editing.

MAKE CONNECTIONS

- If the camcorder has no S-VIDEO output connector... connect the camcorder's AUDIO/VIDEO OUT connectors to the recorder's front panel AUDIO/VIDEO input connectors.
- If the camcorder has an S-VIDEO output connector... connect the camcorder's S-VIDEO OUT and AUDIO OUT connectors to the recorder's front panel S-VIDEO and AUDIO input connectors.
- If the camcorder has a DV OUT/IN connector... connect the camcorder's DV OUT/IN connector to the recorder's DV IN/OUT connector.

- When using a monaural camcorder, connect its AUDIO OUT connector to the AUDIO L input connector on your recorder.
- When a Master Edit Control-equipped JVC camcorder is used, the camcorder is capable of controlling the recorder. Refer to the camcorder's instruction manual for operating procedure.

SELECT RECORDING DECK

Press VHS or DV.

SET RECORDER'S INPUT MODE

Press NUMBER key "0" and/or TV PROG to select "L-3".

- When using the VHS deck as the recording deck, set "L-3 AV" to "VIDEO" for the AUDIO/VIDEO input connectors, or "S-VIDEO" for the AUDIO/S-VIDEO input connectors, depending on the connectors being used (see pg. 41).

SET EDIT MODE (VHS DECK ONLY)

See "Picture Control" on page 33.

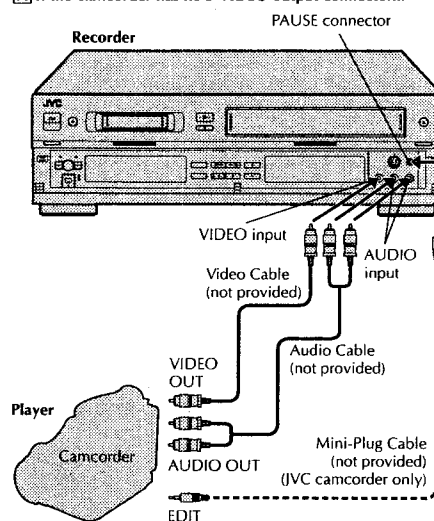
START CAMCORDER

Engage its Play mode.

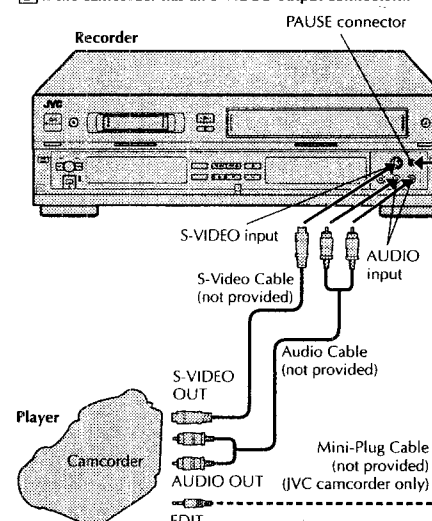
START RECORDER

Engage its Record mode.

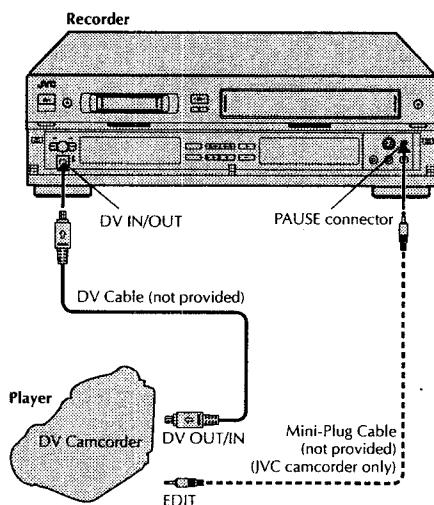
A If the camcorder has no S-VIDEO output connector...



B If the camcorder has an S-VIDEO output connector...



C If the camcorder has a DV OUT/IN connector...



NOTE:

The signals through the DV IN/OUT connector cannot be recorded on the VHS deck, even though → beside the DUB button is pressed.

L-3 AV Setting

Set "L-3 AV" to the appropriate mode depending on the connector (VIDEO or S-VIDEO input connector) being used on the front panel.

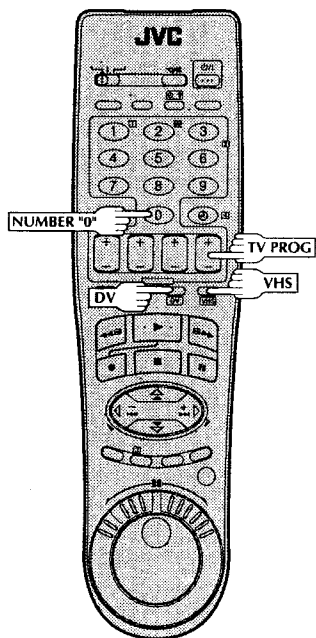
- Press MENU to access the Main Menu screen.
- Press Δ▽ to move the highlight bar (pointer) to "VHS MODE SET", then press OK or P.
- Press Δ▽ to move the highlight bar (pointer) to "L-3 AV".
- Press OK or P to select "VIDEO" or "S-VIDEO".

VHS MODE SET	
B.E.S.T.	ON
PICTURE CONTROL	AUTO
AUTO SP→LP TIMER	OFF
DIGITAL 3R	ON
S-VHS	AUTO
DIGITAL TRC/WR	ON
L-3 AV	VIDEO
[A/V] → [C/S]	
[MENU] : EXIT	

- a-VIDEO : If a connected device's output is compatible only with regular video signals, set "L-3 AV" to "VIDEO".
- b-S-VIDEO : If a connected device's output is compatible with Y/C signals, set "L-3 AV" to "S-VIDEO". This setting will let you take advantage of higher-quality S-VHS pictures.

- Press MENU to return to normal screen.

Edit To Or From Another Video Recorder



You can use your video recorder as the source player or as the recording deck.

1

MAKE CONNECTIONS

Connect the player's 21-pin SCART connector to the recorder's 21-pin SCART connector as illustrated on page 43.

A When Using Your Video Recorder As The Source Player ...
... connect its AV1 IN/OUT connector to the recording deck.

B When Using Your Video Recorder As The Recording Deck ...
... connect its AV2 IN/DECODER or AV1 IN/OUT connector to the source player.

C If Another Recorder Is Compatible With The Y/C Signal ...
... connect your recorder's AV1 IN/OUT connector to another recorder.

With **C** connection ...

- When using your recorder as the recording deck, set "AV1 SELECT" to "S-VIDEO" and "AV2 SELECT" to "AV2" (pg. 48).
- When using your recorder as the source player, set the AV1 OUT switch on the rear panel to Y/C (pg. 6).

2

SELECT DECK

Press VHS or DV.

- When using your recorder as the source player, set "S-VHS/AUDIO OUT" to "VHS" or "DV", depending on the deck being selected (pg. 48).

3

SET RECORDING DECK'S INPUT MODE

Set to AUX. With this video recorder, press **NUMBER** key "0" and/or **TV PROG** to select "L-1" for the AV1 IN/OUT connector, or "L-2" for the AV2 IN/DECODER connector, depending on the connector being used.

- When using the AV2 IN/DECODER connector, set "AV2 SELECT" to the appropriate mode. (pg. 48)

4

SET EDIT MODE (VHS DECK ONLY)

See "Picture Control" on page 33.

5

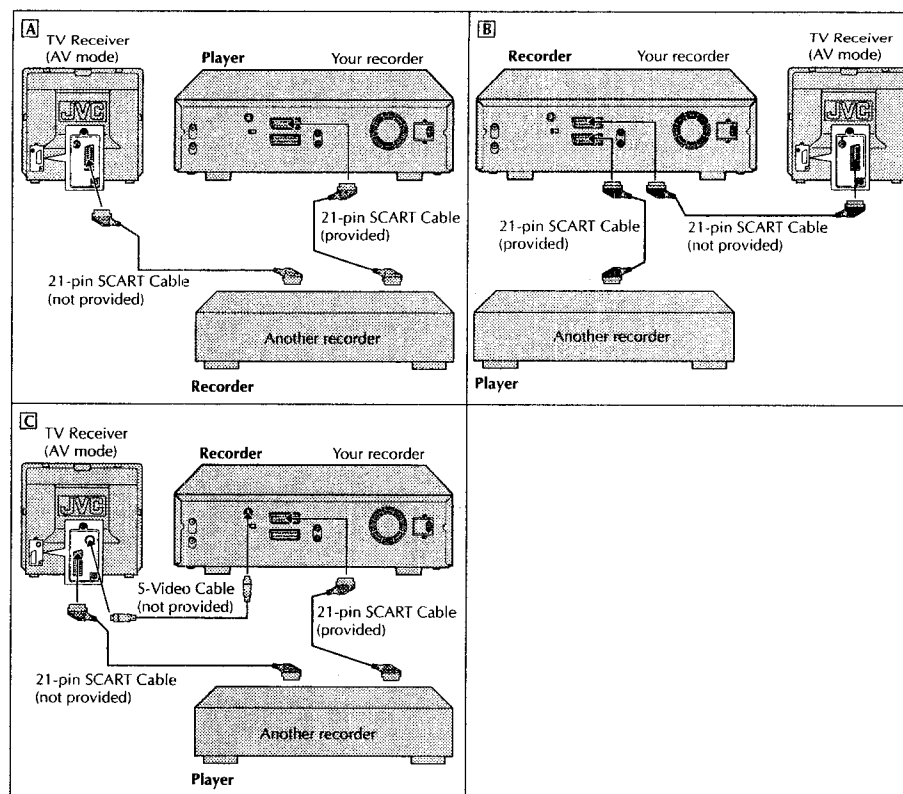
START SOURCE PLAYER

Engage its Play mode.

6

START RECORDING DECK

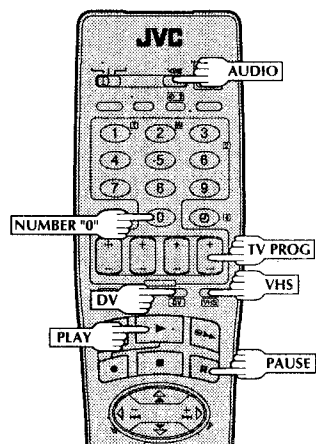
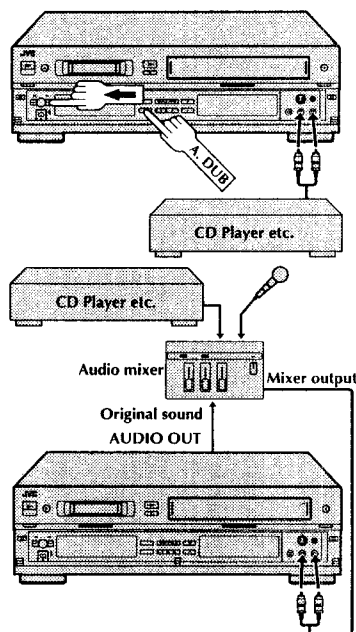
Engage its Record mode.



NOTES:

- All necessary cables can be obtained from your dealer.
- For Y/C signal input/output, be sure to use a 21-pin SCART cable that is compatible with the Y/C signal.
- When you select EDIT to dub tapes in step 4, be sure to select AUTO (or NORM when B.E.S.T. is set to OFF) after you finish dubbing the tapes.
- When you use this recorder as the player for editing, be sure to set "O.S.D." to "OFF" before starting (pg. 52).
- If you are using another recorder with S-Video and Audio input/output connectors, you can connect those connectors to this recorder's S-VIDEO IN/S OUT and AUDIO IN/OUT connectors.
When Using Your Video Recorder As The Source Player ...
... connect its rear panel S OUT and AUDIO OUT connectors to the recording deck's S-Video and Audio input connectors.
When Using Your Video Recorder As The Recording Deck ...
... connect its front panel S-VIDEO and AUDIO input connectors to the source player's S-Video and Audio output connectors.
Then, set the recorder's input mode to "L-3" and set "L-3 AV" to "S-VIDEO" (pg. 41).

Audio Dubbing

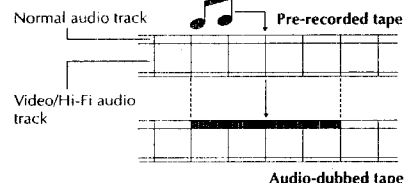


NOTE:

To use the DV deck as the recording deck, press $\leftarrow$ and then DV after selecting "L-3" in step 3.

VHS Audio Dubbing

Audio dubbing replaces the normal audio sound of a previously recorded tape with a new soundtrack.



DV Audio Dubbing

This function lets you record new audio, without erasing the original audio, on a DV tape that was recorded with "SOUND MODE" set to "32kHz" (pg. 31). You can then play back audio that you recorded by connecting other audio or video equipment to this recorder.

You cannot perform audio dubbing on a tape that was recorded with "SOUND MODE" set to "48kHz", on a tape that was recorded at the "LP" speed, or on a blank tape.

MAKE CONNECTIONS

Connect an audio component to the AUDIO L + R connectors on the recorder's front panel.

- When connecting monaural equipment, use only the recorder's AUDIO L connector.

SELECT RECORDING DECK

Press VHS.

SET INPUT MODE

Press NUMBER key "0" and/or TV PROG so that "L-3" appears in place of a preset number.

LOCATE START POINT

Press PLAY to start playback of the tape in your recorder, and press PAUSE when you find the point where you want to start dubbing.

ENGAGE AUDIO DUBBING

Press A. DUB.

- It is possible to take the original sound recorded on the tape in your recorder and mix it with other sounds from a microphone, CD player etc. To perform this audio dubbing with audio mixing, connect as in the diagram on the left.
- Your recorder enters the Audio Dubbing Pause mode. ("0" blinks, "0" and "0" light up on the front display panel.)
- To perform audio dubbing with audio mixing, press AUDIO on the remote control to select "HIFI L" or "L" or "L" at this point. When using the DV deck as the recording deck, also make sure that "32kHz MODE" is set to "SOUND1" (pg. 31).
- Audio dubbing with audio mixing is not possible if you're using a monaural audio component, or if you don't have an audio mixer.

START DUBBING

Engage the audio component's Play mode, then press PLAY to start the tape in your recorder. Audio dubbing begins at this point.

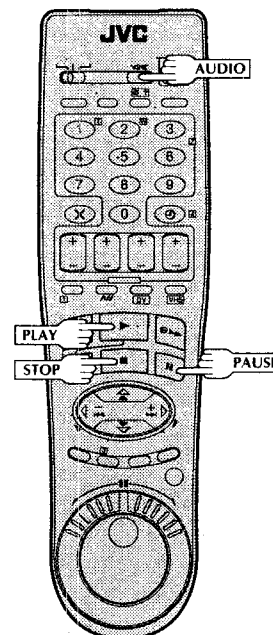
- "0" blinks and "0" is displayed on the front display panel.
- To stop dubbing temporarily, press PAUSE. Press PLAY to resume dubbing.

END AUDIO DUBBING

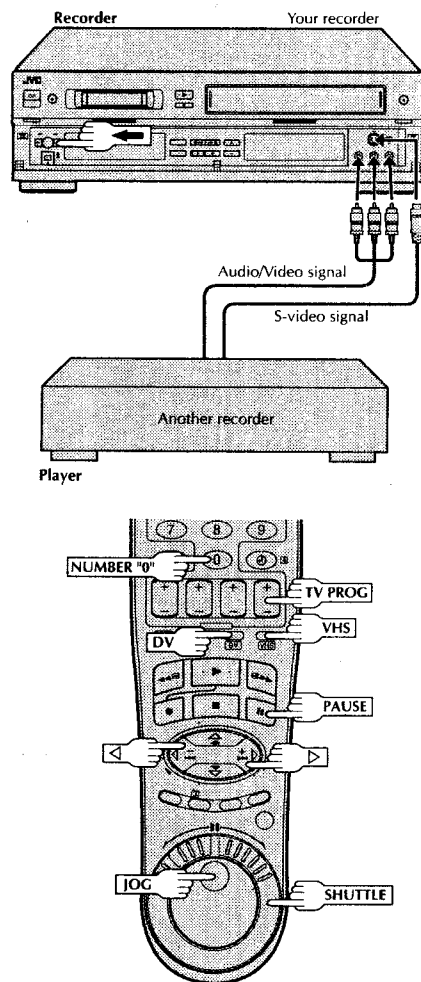
Press STOP to stop the tape in your recorder, and engage the audio component's Stop mode.

NOTES:

- When monitoring the sound during Audio Dubbing, the normal soundtrack is automatically selected. If you wish to hear the mixed sound (Hi-Fi + Normal soundtracks), press AUDIO on the remote control to select "HIFI NORM" (VHS deck only pg. 30).
- Audio dubbing stops automatically when the counter reaches "0:00:00", and the recorder enters the Play mode (VHS deck only). Check the counter reading before dubbing.
- Audio dubbing is also possible using the rear panel AV1 IN/OUT or AV2 IN/DECODER connector. When using these connectors, make sure to select the correct input mode in step 3.
- Audio dubbing cannot be performed on a VHS/S-VHS cassette that has had its record safety tab removed, or on a Mini DV cassette that has had its erase protection switch set to "SAVE".
- When playing back an audio-dubbed tape on the VHS deck, press AUDIO on the remote control to select the soundtrack you wish to hear (pg. 30). When playing back an audio-dubbed Mini DV tape on the DV deck, set "32kHz MODE" to "SOUND2" (pg. 31).
- Audio dubbing is not possible using the DV IN/OUT connector.



Insert Editing

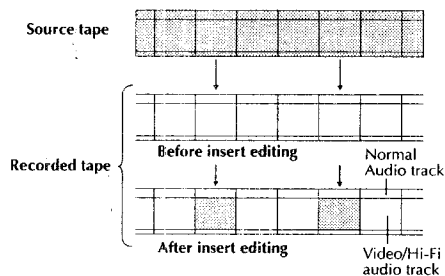


NOTES:

- Insert Editing is not possible with a Mini DV tape recorded in LP mode.
- To use the DV deck as the recording deck, press ← and then DV after selecting "L-3" in step 3.

VHS Insert Editing

Insert Editing replaces part of the recorded scene with new material. Both the picture and Hi-Fi audio soundtrack are replaced with new ones, while the normal audio soundtrack remains unchanged. If you wish to change the normal audio track as well, use the audio dubbing function simultaneously. Use your video recorder as the recorder.



DV Insert Editing (SP Mode Only)

The picture is replaced with new one, while the audio soundtrack remains unchanged. Use your video recorder as the recorder.

1 MAKE CONNECTIONS

Connect the player's VIDEO OUT or S-VIDEO OUT and AUDIO OUT connectors to your recorder's VIDEO or S-VIDEO and AUDIO input connectors on the front panel.

2 SELECT RECORDING DECK

Press VHS.

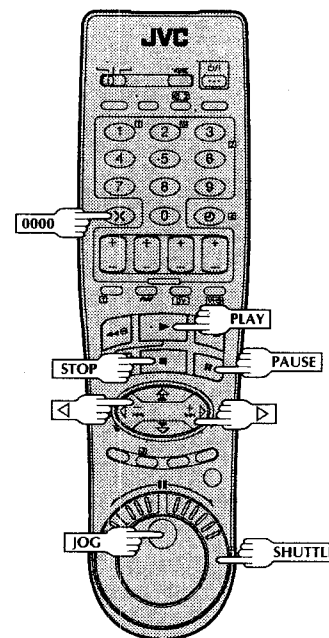
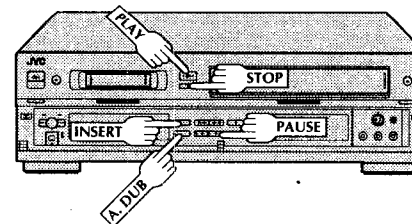
3 SET RECORDER'S INPUT MODE

Press NUMBER key "0" and/or TV PROG to select "L-3".

- When using the VHS deck as the recording deck, set "L-3 AV" to "VIDEO" for the AUDIO/VIDEO input connectors, or "S-VIDEO" for the AUDIO/S-VIDEO input connectors, depending on the connectors being used (pg. 41).

4 LOCATE END POINT (VHS DECK ONLY)

Load the recording cassette into your recorder, and play it back to determine the edit-out point (the end of the segment to be replaced) using the SHUTTLE ring or the JOG dial, or pressing <> and PAUSE.



NOTES:

- All necessary cables can be obtained from your dealer.
- Insert Editing cannot be performed on a VHS/S-VHS cassette that has had its record safety tab removed, or on a Mini DV cassette that has had its erase protection switch set to "SAVE".
- When Insert Editing is performed on a tape that has been recorded on another video recorder, the inserted portion may appear distorted.
- In Insert Editing, the recording speed (SP/LP) is determined by the previous recording to be replaced. If the previous recording's speed changes within a single edit, the inserted picture will be distorted at the switching point. (VHS deck only)
- A small portion of the recording which precedes an insert edit may be erased.
- Insert Editing is also possible using the rear panel AV1 IN/OUT or AV2 IN/DECODER connector. When using these connectors, make sure to select the correct input mode in step 3.
- Insert Editing is not possible using the DV IN/OUT connector.

RESET THE COUNTER (VHS DECK ONLY)

Press 0000 to change the counter display to "0:00:00".

LOCATE START POINT

Determine the edit-in point (the beginning of the segment to be replaced) using the SHUTTLE ring or the JOG dial or pressing <> and PAUSE.

- Be sure to engage the Still mode at the edit-in point.

ENGAGE INSERT EDITING

Press INSERT.

- Your recorder enters the Insert-Pause mode. ("I", "E" and "I" light up on the front display panel.)
- The TV screen changes from the still picture to the input source you are going to record.

START EDITING

Load the source cassette and play back the segment that is to be inserted. When you reach the start of the section of the source tape that you wish to insert, press PLAY to start the tape in your recorder; Insert Editing begins at this point.

- "I" and "E" are displayed on the front display panel.

END INSERT EDITING

VHS deck

At counter "0:00:00", Insert Editing will stop automatically while the tape continues running in the Play mode. If you wish to stop Insert Editing before the specified edit-out point, press 0000.

DV deck

Press STOP to stop the tape in the DV deck.

FOR AV INSERT EDITING (VHS DECK ONLY)

If you want to replace the picture, Hi-Fi audio soundtrack and normal audio soundtrack all at the same time...

... In step 7 above, after you press INSERT, press A. DUB also. ("I" and "E" blink and "I" lights up on the front display panel.)

AV1 SELECT Setting

Set "AV1 SELECT" to the appropriate mode depending on the type of unit connected to the rear panel AV1 IN/OUT connector of this recorder.

- 1 Press **MENU** to access the Main Menu screen.
- 2 Press $\Delta \nabla$ to move the highlight bar (pointer) to "MODE SET", then press **OK** or $\triangleright$.
- 3 Press $\Delta \nabla$ to move the highlight bar (pointer) to "AV1 SELECT".
- 4 Press **OK** or $\triangleright$ to select "VIDEO" or "S-VIDEO".
 - a-VIDEO : If a connected device's output is compatible only with regular video signals, set "AV1 SELECT" to "VIDEO".
 - b-S-VIDEO : If a connected device's output is compatible with Y/C signals, set "AV1 SELECT" to "S-VIDEO". This setting will let you take advantage of higher-quality S-VHS pictures.
- 5 Press **MENU** to return to normal screen.

- The "AV1 SELECT" setting is for signal input to the AV1 IN/OUT connector.
- If "AV2 SELECT" is set to "DECODER", it is impossible to set "AV1 SELECT" to "S-VIDEO".

MODE SET		
S-VHS/AUDIO OUT	AUTO	
O.S.D.	ON	
AUTO TIMER	OFF	
DIRECT REC	ON	
POWER SAVE	OFF	
AV1 SELECT	VIDEO	
AV2 SELECT	AV2	
[A/B] → [C] : MENU: EXIT		

AV2 SELECT Setting

Set "AV2 SELECT" to the appropriate mode depending on the type of unit connected to the rear panel AV2 IN/DECODER connector of this recorder.

- 1 Press **MENU** to access the Main Menu screen.
- 2 Press $\Delta \nabla$ to move the highlight bar (pointer) to "MODE SET", then press **OK** or $\triangleright$.
- 3 Press $\Delta \nabla$ to move the highlight bar (pointer) to "AV2 SELECT".
- 4 Press **OK** or $\triangleright$ to select "AV2", "DECODER" or "SAT".
 - a-AV2 : To use this recorder as the recording deck with the player connected to the AV2 IN/DECODER connector, or to use the satellite receiver connected to the AV2 IN/DECODER connector.
 - b-DECODER : To use a decoder connected to the AV2 IN/DECODER connector.
 - c-SAT : To view a satellite programme with the TV set while the recorder is in Timer mode, in Stop mode, recording or turned off. (pg. 57)
- 5 Press **MENU** to return to normal screen.

- If you have a satellite receiver or a decoder connected to the AV2 IN/DECODER connector, be sure to set "AV2 SELECT" back to appropriate mode after editing.
- If you're not connecting a satellite receiver or a decoder to the AV2 IN/DECODER connector, leave "AV2 SELECT" set to "AV2".
- The default setting is "AV2"; if the recorder's memory backup has expired due to a power cut or because the AC was removed from the recorder, "AV2" will be automatically selected when the power is restored to the recorder. If you are using a satellite receiver or a decoder, be sure to set "AV2 SELECT" back to appropriate mode.
- If the AV1 OUT switch on the rear panel is set to Y/C, it is impossible to set "AV2 SELECT" to "DECODER".

MODE SET		
S-VHS/AUDIO OUT	AUTO	
O.S.D.	ON	
AUTO TIMER	OFF	
DIRECT REC	ON	
POWER SAVE	OFF	
AV1 SELECT	VIDEO	
AV2 SELECT	AV2	
[A/B] → [C] : MENU: EXIT		

S-VHS/AUDIO OUT Setting

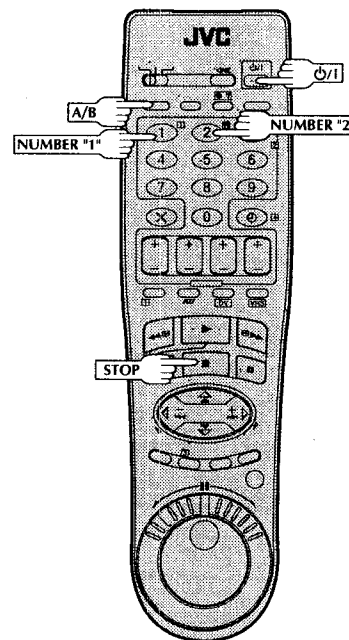
Set "S-VHS/AUDIO OUT" to the appropriate mode depending on the selection of the playing deck (VHS or DV) for editing.

- 1 Press **MENU** to access the Main Menu screen.
- 2 Press $\Delta \nabla$ to move the highlight bar (pointer) to "MODE SET", then press **OK** or $\triangleright$.
- 3 Press $\Delta \nabla$ to move the highlight bar (pointer) to "S-VHS/AUDIO OUT".
- 4 Press **OK** or $\triangleright$ to select "AUTO", "VHS" or "DV".
 - a-AUTO : The recorder outputs the signals from the deck being used automatically. The on-screen display is also output.
 - b-VHS : The recorder outputs only the signals from the VHS deck. The on-screen display is not output.
 - c-DV : The recorder outputs only the signals from the DV deck. The on-screen display is not output.
- 5 Press **MENU** to return to normal screen.

- If you select "VHS" or "DV", the Main Menu screen will not appear even when **MENU** is pressed. To change the menu settings, connect your TV to the recorder's AV1 IN/OUT connector, not to the S OUT/AUDIO OUT connectors.

MODE SET		
S-VHS/AUDIO OUT	AUTO	
O.S.D.	ON	
AUTO TIMER	OFF	
DIRECT REC	ON	
POWER SAVE	OFF	
AV1 SELECT	VIDEO	
AV2 SELECT	AV2	
[A/B] → [C] : MENU: EXIT		

Remote Control Functions



Remote A/B Code Switching

The remote control is capable of controlling two JVC video recorders independently; one set to respond to the remote control's A code control signals and another set to respond to B code control signals. The remote control is preset to send A code signals because your video recorder is initially set to respond to A code signals. You can easily modify your video recorder to respond to B code signals.

REMOVE POWER SUPPLY

- 1 Unplug the mains power cord from the mains outlet.

SET REMOTE CONTROL CODE

- 2 While holding down **A/B** on the remote control, press the **NUMBER** key "2" and then press **STOP**.

RE-SUPPLY POWER

- 3 Plug the mains power cord back into the mains outlet.

TURN THE RECORDER ON

- 4 Press $\phi/1$ on the remote control. The recorder will now only respond to B code signals.

NOTE:

To set the recorder back to respond to A code signals, repeat the same procedure as shown above except pressing **NUMBER** key "1" instead of "2" in step 2.

TV Multi-brand Remote Control

Your remote control can operate the basic functions of your TV set. In addition to JVC TVs, other manufacturer's TVs can also be controlled.

Before you start . . .

- Turn on the TV using its remote control.
- Set the remote control's VCR/TV/SAT switch to TV.

1 SET TV BRAND CODE

Refer to the chart below. While holding down ϕ/I on the recorder's remote control, enter your TV's brand code using the **NUMBER** keys, then press **STOP**. Check if the TV's power goes off as it should. If it does, try other operations ($\Rightarrow$ step 2).

- Once you have set the remote control to operate the TV, you don't have to repeat this step until you replace your remote control's batteries.
- JVC and SAMSUNG have more than one code. If the TV does not function with one code, try entering another.

2 OPERATE TV

Press the corresponding button: ϕ/I , TV PROG +/-, TV/VCR, TV $\triangleleft$ +/- (Volume), $\square/\boxtimes$ (Muting), **NUMBER** keys.

- For some brands of TV, you must press **ENTER** after having pressed the **NUMBER** keys.
- To return the remote to video recorder control, set its VCR/TV/SAT switch to VCR.

IMPORTANT

Although the provided remote control unit is compatible with JVC televisions, as well as many other models, it may not work with your TV, or in some instances, may have limited function capability.

Control Your TV Using Additional Buttons

Use the **NUMBER** keys, and the **///** button, **X** button or $\odot$ button to select the TV's channel.

- With televisions under Code 01, 02, 07, 10, 11, 14, 20, 23, 24, 25, 27, 33 or 35, the **///** button corresponds to the 1-digit/2-digit entry switching button (often labelled -/-) of your TV's remote control.
- With televisions under Code 01, 28, 29 or 34, the **X** button corresponds to the 10 + button, and the $\odot$ button corresponds to the 20 + button of your TV's remote control.

NOTE:

The way these buttons are used is determined by your TV. Use these buttons as instructed for your TV's remote control.

TV BRAND NAME	CODE
JVC	01, 23, 24, 25
BLAUPUNKT	19
BRANDT	26
FERGUSON	27
FINLUX	30
FUNAI	32
LG/GOLDSTAR	18
GRAETZ	28
GRUNDIG	19
HITACHI	10
ITT	28
LUXOR	28
MITSUBISHI	03
MIVAR	29
NEC	20
NOKIA	31
NORDMENDE	26
PANASONIC	11
PHILIPS	02
SABA	26
SALORA	28
SAMSUNG	02, 12, 33, 34, 35
SELECO	28
SHARP	06
SONY	07
TELEAVIA	26
TELEFUNKEN	26
THOMSON	26
TOSHIBA	14

Satellite Receiver Multi-Brand Remote Control

Your remote control can operate the basic functions of your satellite receiver set. In addition to JVC satellite receivers, other manufacturer's satellite receivers can also be controlled.

Before you start . . .

- Turn on the satellite receiver using its remote control.
- Set the remote control's VCR/TV/SAT switch to SAT.

1 SET SATELLITE RECEIVER BRAND CODE

Refer to the chart below. While holding down ϕ/I on the recorder's remote control, enter your satellite receiver's brand code using the **NUMBER** keys, then press **STOP**. Check if the satellite receiver's power goes off as it should. If it does, try other operations ($\Rightarrow$ step 2).

- Once you have set the remote control to operate the satellite receiver, you don't have to repeat this step until you replace your remote control's batteries.
- Some satellite receiver brands have more than one code. If the satellite receiver does not function with one code, try entering another.

2 OPERATE SATELLITE RECEIVER

Press the corresponding button: ϕ/I , TV PROG +/-, **NUMBER** keys.

- For VIDEOWAY or some other brands of satellite receiver, you must press **///** after having pressed the **NUMBER** keys.
- The **NUMBER** buttons may not function with some satellite receivers.
- To return the remote to video recorder control, set its VCR/TV/SAT switch to VCR.

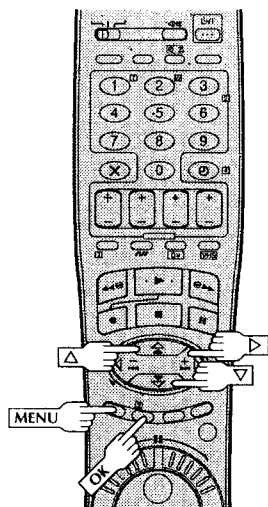
IMPORTANT

Although the provided remote control unit is compatible with JVC satellite receivers, as well as many other models, it may not work with your satellite receiver, or in some instances, may have limited function capability.

SATELLITE TUNER BRAND	CODE
JVC	72, 73
AMSTRAD	60, 61, 62, 63
BT	72
CANAL +	81
FINLUX	68
GRUNDIG	64, 65
HIRSCHMANN	64
ITT	68
JERROLD	75
KATHREIN	70, 71
LUXOR	68
MASPRO	70
NOKIA	68
PACE	65, 67
PANASONIC	74
PHILIPS	66
RFT	69
SALORA	68
SIEMENS	64
SKYMASTER	69
VIDEOWAY	76
WISI	64

Other Functions

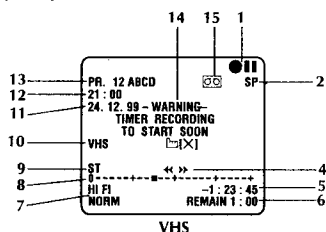
Turn on the TV and select the AV mode.



NOTES:

- When you use this recorder as the player for editing, be sure to set "O.S.D." to "OFF" before starting.
- During playback, the operation mode indicators may sometimes be disturbed depending on the type of tape being used.

The superimposed indication on the TV screen tells you what the recorder is doing.



On-Screen Display

You can choose whether or not to have various operational indicators appear on screen, by setting this function ON or OFF.

ACCESS MAIN MENU SCREEN

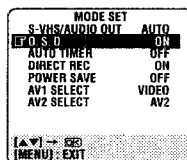
Press MENU.

ACCESS MODE SET SCREEN

Move the highlight bar (pointer) to "MODE SET" by pressing Δ / ∇ , then press OK or $\triangleright$.

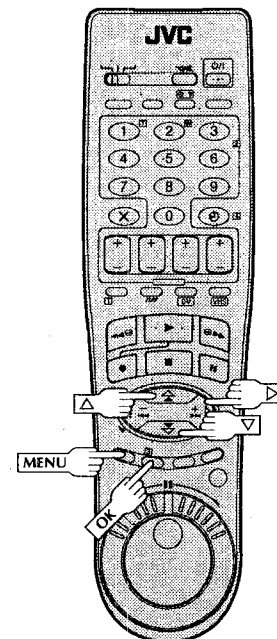
ENABLE/DISABLE ON-SCREEN DISPLAY

The default setting is "ON", so if you want on-screen displays, leave the setting as it is and go to step 4. If you don't want the displays to appear, press Δ / ∇ to move the highlight bar (pointer) to "O.S.D." and press OK or $\triangleright$ to set "O.S.D." to "OFF".



RETURN TO NORMAL

Press MENU.



Power Save Mode

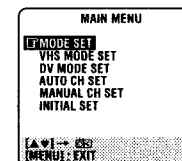
You can reduce the power consumption while the recorder is turned off.

ACCESS MAIN MENU SCREEN

Press MENU.

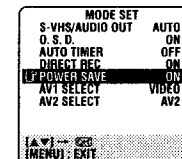
ACCESS MODE SET SCREEN

Press Δ / ∇ to move the highlight bar (pointer) to "MODE SET", then press OK or $\triangleright$.



SELECT POWER SAVE MODE

Press Δ / ∇ to move the highlight bar (pointer) to "POWER SAVE", then press OK or $\triangleright$ to set to "ON".



RETURN TO NORMAL SCREEN

Press MENU.

NOTES:

- During Power Save, the display panel will be turned off.
- The Just Clock function (pg. 69) does not work while the Power Save mode is engaged.
- While the recorder is in the Power Save mode, the picture may be distorted momentarily when you turn on/off the recorder.
- Power Save does not work when ...
 - ... the recorder is in the Timer mode.
 - ... the recorder's power is turned off after timer-recording (or Instant Timer Recording).
 - ... "AV2 SELECT" is set to "DECODER" or "SAT" (pg. 48).

- 1- Operation mode indicators
- 2- Tape speed SP/LP/EP (EP is for NTSC playback only)
- 3- Sound mode indicator (DV) (pg. 31)
- 4- Tape direction (VHS)
- 5- Counter display (VHS)
- 6- Tape remaining time indicator (VHS) (pg. 17)
- 7- Audio mode display (pg. 30, 31)

- 8- Tape position indicator (VHS) (pg. 14)
- 9- Type of Broadcast (pg. 32)
- 10- VHS/DV indicator (pg. 12)
- 11- Current day/month/year
- 12- Clock display
- 13- Channel position number and station name/Aux. indicator (L-1, L-2 or L-3)
- 14- Timer warning display (pg. 19, 21)
- 15- Cassette loaded mark

Auto SP→LP Timer (VHS Deck Only)

If, when timer-recording in SP mode, there is not enough tape to record the entire programme, the recorder automatically switches to LP mode to allow complete recording.

For Example . . .

Recording a programme of 210 minutes in length onto a 180-minute tape

Approximately 150 minutes

Approximately 60 minutes

SP mode

LP mode

Total 210 minutes

Make sure you set "AUTO SP→LP TIMER" to "ON" at the Mode Set screen before the timer-recording starts.

1 ACCESS MAIN MENU SCREEN

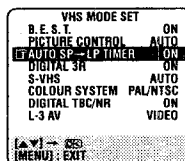
Press MENU.

2 ACCESS VHS MODE SET SCREEN

Press Δ / ∇ to move the highlight bar (pointer) to "VHS MODE SET", then press OK or $\triangleright$.

3 SELECT MODE

Press Δ / ∇ to move the highlight bar (pointer) to "AUTO SP→LP TIMER", then press OK or $\triangleright$ to select "ON".

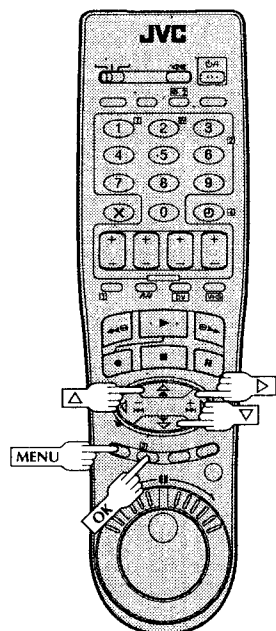


4 RETURN TO NORMAL SCREEN

Press MENU.

NOTES:

- The Auto SP→LP Timer feature is not available during ITR (Instant Timer Recording), and the feature will not work properly with any tapes longer than E-180 or with some tapes of shorter lengths.
- If you have programmed the recorder to timer-record 2 or more programmes, the second programme and those thereafter may not fit on the tape if you set "AUTO SP→LP TIMER" to "ON". In this case, make sure the mode is not engaged, then set the tape speed manually during timer programming.
- In order to ensure that the recording fits on the tape, this feature may leave a short non-recorded section at the end of the tape.
- There may be some picture noise and sound disturbance at the point on the tape where the recorder switches from SP to LP mode.
- If you perform timer recording with both PDC and the Auto SP→LP Timer activated, and the programme goes beyond its originally scheduled length, there may be times when the programme cannot be recorded in its entirety.



Auto Timer

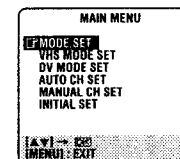
When the Auto Timer is set to ON the timer is automatically engaged when the recorder power is turned off and automatically disengaged when the recorder is powered back on.

ACCESS MAIN MENU SCREEN

Press MENU.

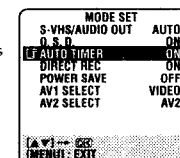
2 ACCESS MODE SET SCREEN

Press Δ / ∇ to move the highlight bar (pointer) to "MODE SET", then press OK or $\triangleright$.



3 SELECT MODE

Press Δ / ∇ to move the highlight bar (pointer) to "AUTO TIMER", then press OK or $\triangleright$ to select either "ON" or "OFF".



4 RETURN TO NORMAL SCREEN

Press MENU.

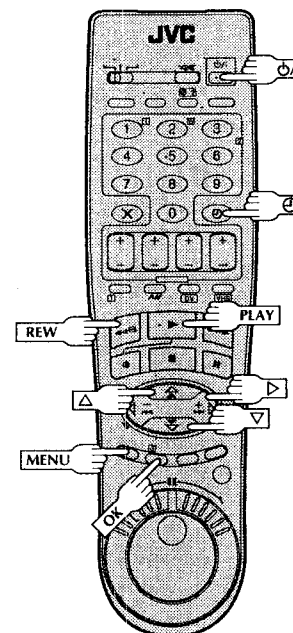
NOTE:

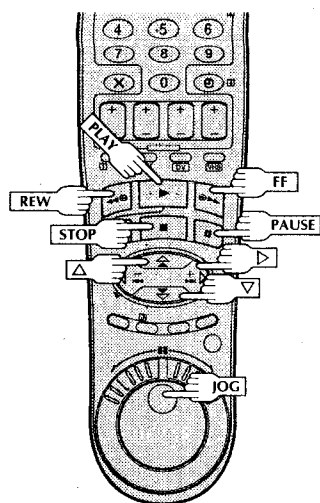
For safety, when Auto timer is set to "OFF", all other recorder functions are disabled while the Timer mode is engaged. To disengage the timer, press $\odot$ (TIMER).

Next Function Memory

The Next Function Memory "tells" the recorder what to do after rewinding. Before continuing, make sure the recorder is in the Stop mode.

- a- For Automatic Start Of Playback After Tape Rewind . . .
... press **REW**, then press **PLAY** within 2 seconds.
- b- For Automatic Power Off After Tape Rewind . . .
... press **REW**, then press $\odot$ /I within 2 seconds.
- c- For Automatic Cassette Ejection After Tape Rewind . . .
... press **REW**, then press **EJECT** within 2 seconds.





Repeat Playback (VHS Deck Only)

Your video recorder can automatically play back the whole tape 50 times repeatedly.



1 START PLAYBACK

Press **PLAY**.

2 ACTIVATE REPEAT PLAYBACK

Press **PLAY** and hold for over 5 seconds, then release.

- The Play indicator (▶) on the display panel blinks slowly.
- The tape plays 50 times automatically, and then stops.

3 STOP PLAYBACK

Press **STOP** at any time to stop playback.

NOTE:

Pressing **PLAY**, **REW**, **FF** or **PAUSE** also stops Repeat Playback.

NTSC Playback (VHS Deck Only)

Your video recorder is equipped with NTSC circuitry that can play back NTSC tapes.

1 LOAD A CASSETTE

Insert a cassette recorded in NTSC.

2 START PLAYBACK

Press **PLAY**.

- "NTSC→PAL" appears on the screen for about 5 seconds.
- Some TVs shrink the picture vertically and place black bars at the top and bottom of the screen. This is not a malfunction on the part of either the video recorder or the TV.
- The picture may roll up and down. This can be corrected using the V-HOLD control found on some TVs. (This cannot be corrected if the TV does not have a V-HOLD control.)
- The counter and tape remaining time readings will be incorrect.
- During search, still, or frame-by-frame playback, the picture will be distorted, and there may be a loss of colour.
- Depending on the type of TV, the top and bottom portions of superimposed displays may be cut off during NTSC playback.

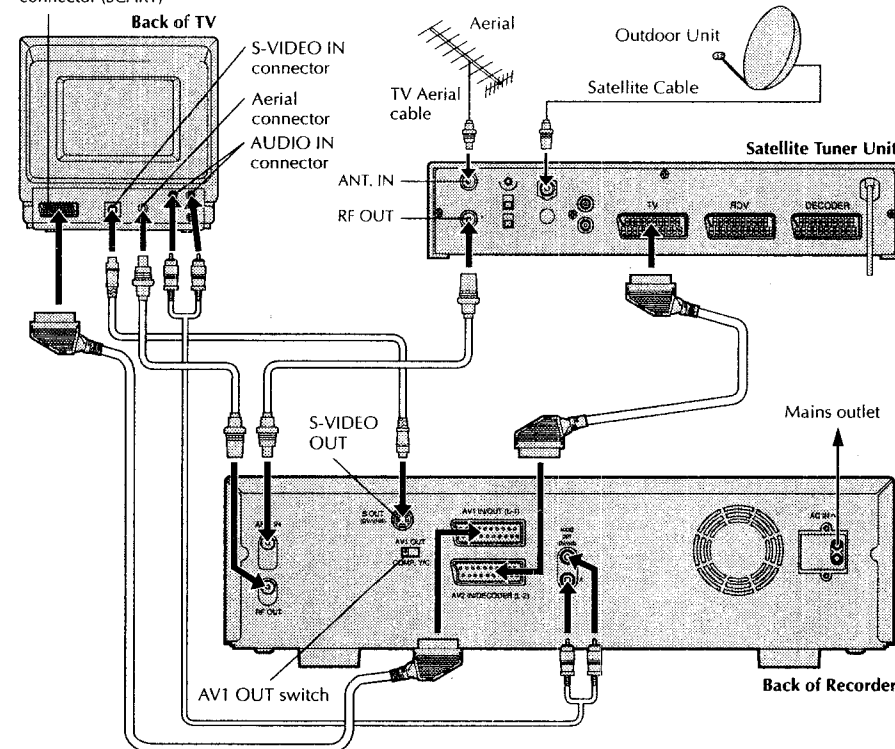
Connecting To A Satellite Tuner

Connect the satellite tuner to the video recorder's AV2 IN/DECODER connector, then connect the recorder's AV1 IN/OUT connector to the TV's 21-pin SCART connector.

NOTES:

- Set "AV2 SELECT" to "AV2" or "SAT". (pg. 48)
- To view a programme via the satellite tuner, select L-2 mode by pressing **NUMBER** keys and/or **TV PROG** so that "L-2" appears on the display panel.
- For details, refer to the instruction manual for the satellite tuner.

21-pin AV input connector (SCART)



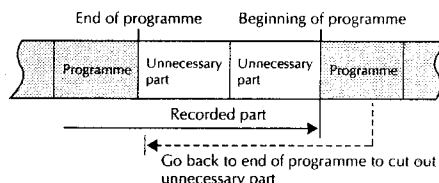
IMPORTANT

When you set "AV2 SELECT" to "SAT" (pg. 48), it is possible to view a satellite broadcast with the TV set to its AV mode even if the recorder is in Timer mode, in Stop mode, recording or turned off. When the recorder is in Stop mode or recording, press **TV/VCR** on the remote control to turn off the VCR indicator on the display panel.

- In this case, be sure to set the **AV1 OUT** switch on the rear panel to **COMP**.

Retake (VHS Deck Only)

You can cut out unnecessary parts of a TV programme while you're recording it.



1 ENGAGE RECORD-PAUSE MODE

Press **PAUSE** during recording.

2 LOCATE START POINT

After pressing **JOG/SHUTTLE** button, turn the **JOG** dial to the left or right (or hold down **REW** or **FF**) and release it when you reach the point where you want to resume recording.

- Your recorder returns to the Record-Pause mode.

3 RESUME RECORDING

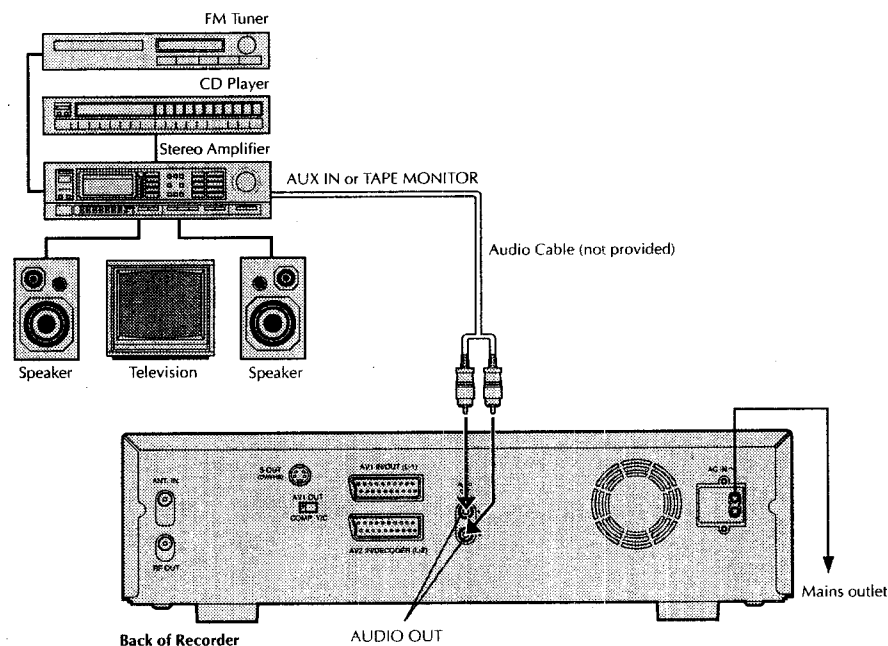
Press **PLAY** when you wish to resume recording.

NOTE:

Retake function does not work during Direct Rec (pg. 11).

Connecting To A Stereo System

These instructions enable you to connect your video recorder to your Hi-Fi stereo system (if you have one) and listen to the soundtrack through the stereo.



1 MAKE CONNECTIONS

Connect the AUDIO OUT L and R connectors on your video recorder to the AUX IN or TAPE MONITOR terminals on your stereo system's receiver or amplifier.

NOTES:

- When connecting your recorder's audio output connectors to a stereo amplifier, make sure you connect L and R correctly.
- If you can receive NICAM TV broadcasts in your area, this recorder can record them independently of the TV set and play them back through the connected stereo system.
- When listening to sound through the connected stereo system, turn the TV's volume down completely.

CAUTIONS:

- This recorder has a dynamic range of more than 80 dB with regards to its Hi-Fi audio capability. It is recommended that you check the maximum level if you are going to listen to the Hi-Fi audio signals through a stereo amplifier. A sudden surge in the input level to the speakers may damage them.
- Some speakers and televisions are specially shielded to prevent television interference. If both are of the non-shielded type, do not place the speakers adjacent to the TV set as this can adversely affect the video playback picture.

Connecting To A Printer

You can make printouts of video images by connecting the GV-DT1/GV-DT3 Digital Printer (sold separately) to the DV IN/OUT connector.

MAKE CONNECTIONS

Connect the printer's DV IN connector to the recorder's DV IN/OUT connector.

2 SELECT DECK

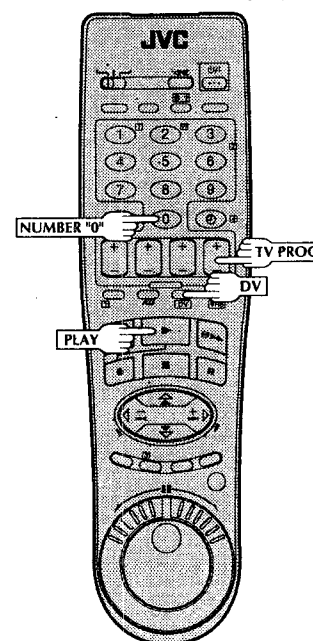
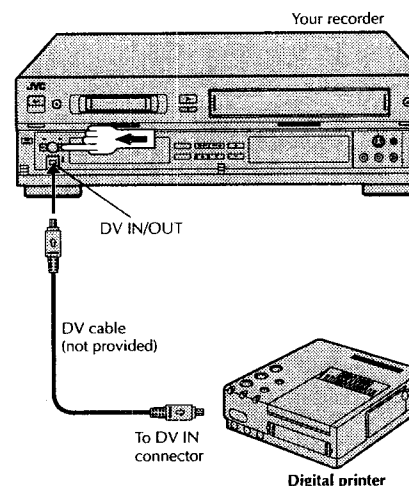
Press DV.

- When you use the VHS deck . . . Press ← beside the DUB button.

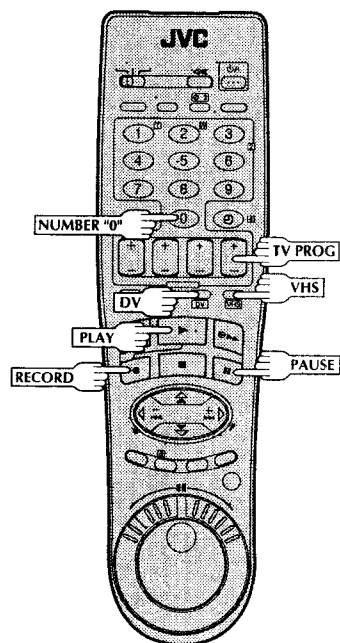
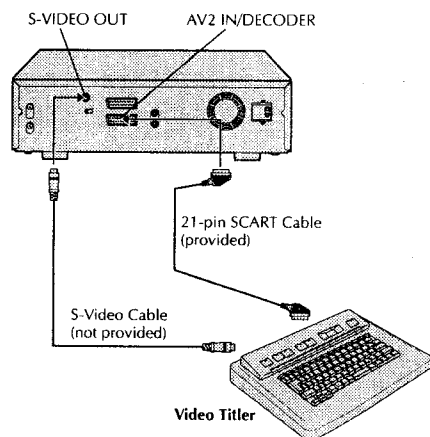
3 START PLAYBACK

Press PLAY.

- The image being displayed on the TV screen is output to the digital printer. Any on-screen displays are not output. Playback Effects are not output, either.



Connecting To A Video Titler



When you edit from the DV deck to the VHS deck (or from the VHS deck to the DV deck), you can enter a title to a scene by connecting a video titler.

1 MAKE CONNECTIONS

Connect the recorder and the video titler as shown in the illustration on the left column.

2 PREPARE PLAYING DECK

Insert a cassette for playback and make the title you want to display.

- When using the DV deck as the source player, set "S-VHS/AUDIO OUT" to "DV" (pg. 48).
- When using the VHS deck as the source player, set "S-VHS/AUDIO OUT" to "VHS" (pg. 48).
- For details of making a title, refer to the instruction manual for the video titler.

3 PREPARE RECORDING DECK

Insert a cassette for recording and press DV or VHS for the recording deck. To set recording deck's input mode, press NUMBER key "0" and/or TV PROG to select "L-2".

- Set "AV2 SELECT" to "AV2" (pg. 48).

4 LOCATE START POINT

Press DV or VHS for the playing deck. Press PLAY to start playback and find the beginning of the scene you want to edit, then press PAUSE.

5 PREPARE VIDEO TITLER

Prepare the video titler so that the title can be displayed.

6 ENGAGE RECORD-PAUSE MODE

Press DV or VHS for the recording deck, then press and hold PAUSE and press RECORD so that the recording deck enters its Record-Pause mode.

7 START PLAYBACK

Press DV or VHS for the playing deck, then press PLAY.

8 START RECORDING

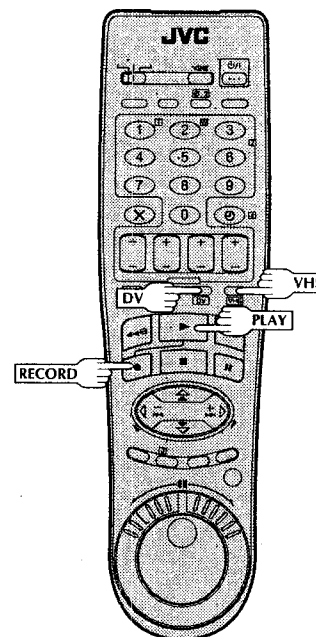
Press DV or VHS for the recording deck, then press RECORD at the point from where you want to start recording.

9 ENTER TITLE

Enter a title at the point where you want the title to be displayed.

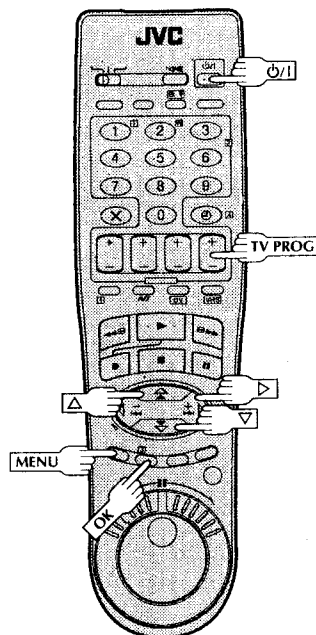
NOTES:

- For the operation of the video titler, refer to its instruction manual.
- If the playing deck is left in the Pause mode, it will automatically go into Stop mode after a time for the protection of the video tape and the video head. The duration of the Pause mode is 3 minutes for the DV deck and 5 minutes for the VHS deck.
- If the recording deck is left in the Record-Pause mode, it will automatically go into Stop mode after a time for the protection of the video tape and the video head. The duration of the Record-Pause mode is 3 minutes for the DV deck and 5 minutes for the VHS deck.



Tuner Set.

Turn on the TV and select the AV mode.



IMPORTANT

Perform the following steps only if —
— Auto Channel Set has not been set correctly by Auto Set Up function (pg. 8) or Preset Download (pg. 9).
— you have moved to a different area or if a new station starts broadcasting in your area.

Your recorder needs to memorise all necessary stations in preset positions in order to record TV programmes. Auto Channel Set automatically assigns all receivable stations in your area to call them up by using the TV PROG buttons without going through any vacant channel.

Auto Channel Set

TURN ON THE RECORDER

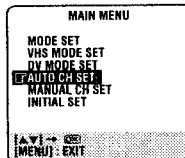
1 Press ϕ/I .

ACCESS MAIN MENU SCREEN

2 Press MENU.

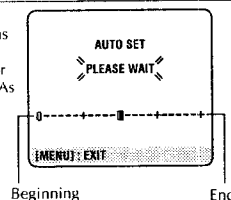
PERFORM AUTO CHANNEL SET

3 Move the highlight bar (pointer) to "AUTO CH SET" by pressing Δ/∇ , then press OK or $\rightarrow$.



- The Auto Set screen appears, and remains on screen while the recorder searches for receivable stations. As Auto Channel Set progresses, the "■" mark on the screen moves from left to right. Wait until the screen as shown in step 4 appears.

- Auto Channel Set usually takes about 4 – 12 minutes; the duration varies by area.



VIEW CONFIRMATION SCREEN

4 After "SCAN COMPLETED" is displayed on the screen for about 5 seconds, a Confirmation screen

looking like the one on the right appears. The stations your recorder located appear on a Confirmation screen — preset positions (PR), channels (CH) and station names (ID — pg. 67). The blueback screen and the programme currently being broadcast by the station which is blinking appear alternately for 8 seconds each.

To view the next page, use the Δ/∇ button on the remote control.

- The Guide Program numbers will also be set automatically during Auto channel Set.

PR	CH	ID	PR	CH	ID
01	26	BBC1	08	---	---
02	33	BBC2	09	---	---
03	23	ITV	10	---	---
04	30	CH4	11	---	---
05	37	CH5	12	---	---
06	---	---	13	---	---
07	---	---	14	---	---

RETURN TO NORMAL SCREEN

5 Press MENU.

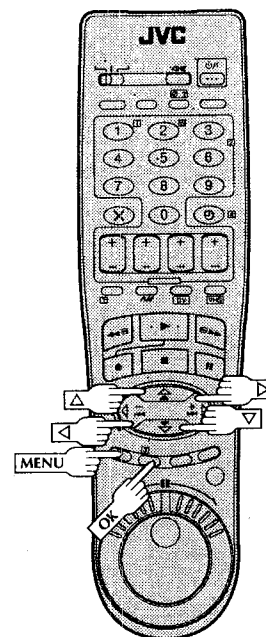
- Using the Confirmation screen, you can skip or add preset positions, enter station names and perform other operations. Refer to pages 64 – 68 for the procedures.
- Depending on reception conditions, the stations may, on occasion, not be stored in order, and the station names may not be stored correctly.

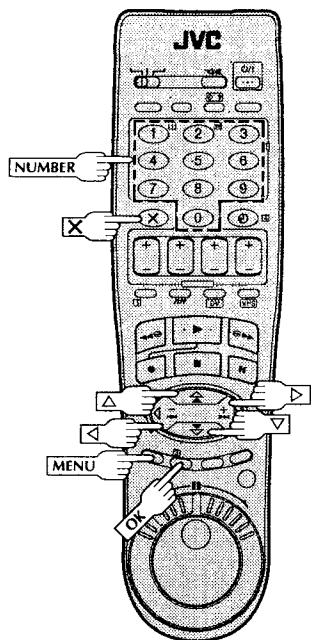
IMPORTANT

- In certain reception conditions, station names may not be stored correctly, and auto Guide Program Number Set may not work properly. If the Guide Program numbers are not set properly, when you timer-record a TV programme using VIDEO Plus+, the recorder will record a TV programme of a different station. When programming the timer using VIDEO Plus+, be sure to check that the preset position corresponding to the broadcasting station you wish to record has been selected (pg. 18, "VIDEO Plus+ Timer Programming").
- Your video recorder memorizes all detected stations even if reception of some of them is poor. In these cases picture quality may be poor. To delete those stations which have an unacceptable picture $\rightarrow$ "Delete A Channel" on page 65.

NOTES:

- Fine tuning is performed automatically during Auto Channel Set. If you wish to perform it manually, refer to page 65.
- If, for any reason, you perform Auto Channel Set when the aerial cable is not connected properly, "SCAN COMPLETED -NO SIGNAL-" appears on the screen in step 4. When this happens, make sure of the aerial connection and press OK; Auto Channel Set will take place again.





Storing Channels Manually

To store channels that were not stored during Auto Set Up (pg. 8), Preset Download (pg. 9) or Auto Channel Set (pg. 62).

1 ACCESS MAIN MENU

Press **MENU**.

2 ACCESS CONFIRMATION SCREEN

Press $\Delta \nabla$ to move the highlight bar (pointer) to "MANUAL CH SET", then press **OK** or $\triangleright$. The Confirmation screen appears.

3 SELECT POSITION

Press $\Delta \nabla \triangleleft \triangleright$ until an open position in which you want to store a channel begins blinking, then press **OK**. The Manual Channel Set screen appears.

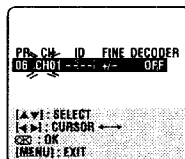
(Ex.) To store in position 6.

PR	CH	ID	PR	CH	ID
01	26	BBC1	08		
02	33	BBC2	09		
03	23	ITV	10		
04	30	CH4	11		
05	37	CH5	12		
06			13		
07			14		

The blueback screen and the programme currently being broadcast by the selected channel appear alternately for 8 seconds each.

4 SELECT BAND

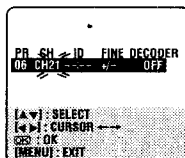
Press $\Delta \nabla$ to change the band between CH (regular) and CC (cable), then press $\triangleright$.



The blueback screen and the programme currently being broadcast by the selected channel appear alternately for 8 seconds each.

5 INPUT CHANNEL

Press the **NUMBER** keys to input the channel number you want to store.



The blueback screen and the programme currently being broadcast by the selected channel appear alternately for 8 seconds each.

- To input the registered station name (ID - pg. 67), press $\triangleright$ until "----" (ID setting) begins blinking, then press $\Delta \nabla$.
- For fine tuning adjustment, press $\triangleright$ until "+/-" begins blinking, then press $\Delta \nabla$. While tuning, "+" or "-" appears.
- When "AV2 SELECT" is set to "AV2", the "DECODER" setting cannot be changed (pg. 48).

6 ENTER NEW CHANNEL INFORMATION

Press **OK** and the Confirmation screen appears.

- Repeat steps 3 through 6 as necessary.

7 CLOSE CONFIRMATION SCREEN

Press **MENU**.

- To change positions, see "Change Station Preset Position" (pg. 65).
- If you wish to set station names other than the ones registered in your recorder, see "Set Stations (B)" on page 66.

ATTENTION

Guide Program numbers are not set when channels are stored manually. If an attempt is made at timer programming with VIDEO Plus+ in this state, the "GUIDE PROG SET" screen appears; set the Guide Program numbers on this screen. See "ATTENTION - Regarding Guide Program Number Set" on page 19. Or perform "Guide Program Number Set" (pg. 70).

Delete A Channel

Perform steps 1 and 2 of "Storing Channels Manually" on page 64 to access the Confirmation screen before continuing.

1 SELECT ITEM

Press $\Delta \nabla \triangleleft \triangleright$ until the item you want to delete begins blinking.

2 DELETE CHANNEL

Press **X**.

- The item directly beneath the cancelled one moves up one line.
- Repeat steps 1 and 2 as necessary.

3 CLOSE CONFIRMATION SCREEN

Press **MENU**.

Change Station Preset Position

Perform steps 1 and 2 of "Storing Channels Manually" on page 64 to access the Confirmation screen before continuing.

1 SELECT ITEM

Press $\Delta \nabla \triangleleft \triangleright$ until the item you want to move begins blinking. Then press **OK** and the station name (ID) and its channel (CH) number begin blinking.

2 SELECT NEW POSITION

Press $\Delta \nabla \triangleleft \triangleright$ to move the station to the new preset position, then press **OK**.

Example: If you moved the station in position 4 to position 2, the stations originally in positions 2 and 3 each move down one space.

PR	CH	ID	PR	CH	ID
01	26	BBC1	08		
02	23	ITV	09		
03	30	CH4	10		
04	33	BBC2	11		
05	37	CH5	12		
06			13		
07			14		

- Repeat steps 1 and 2 as necessary.

3 CLOSE CONFIRMATION SCREEN

Press **MENU**.

Fine-Tuning Channels Already Stored

Perform steps 1 and 2 of "Storing Channels Manually" on page 64 to access the Confirmation screen before continuing.

1 SELECT CHANNEL TO FINE-TUNE

Press $\Delta \nabla \triangleleft \triangleright$ until the channel you want to tune begins blinking.

2 ACCESS MANUAL CHANNEL SET SCREEN

Press **OK** twice. The Manual Channel Set screen appears.

3 PERFORM TUNING

Press $\triangleright$ until "+/-" begins blinking, then press $\Delta \nabla$ until the picture is clearest. Then press **OK**.

- The Confirmation screen appears.
- Repeat steps 1 through 3 as necessary.

4 CLOSE CONFIRMATION SCREEN

Press **MENU**.

ATTENTION

If channel positions are changed or deleted, the Guide Program numbers that have been set are reset.

- Example 1: If a channel is deleted, all the Guide Program numbers are reset.
- Example 2: If a channel is changed from position 4 to position 2, the Guide Program numbers above position 4 are reset.
- Example 3: If a channel is changed from position 4 to position 6, the Guide Program numbers above position 6 are reset.

* In Examples 2 and 3, if the channel is moved to position 10 before **OK** is pressed, the Guide Program numbers above position 10 are reset. If an attempt is made at timer programming with VIDEO Plus+ in this state, the "GUIDE PROG SET" screen appears; set the Guide Program numbers on this screen. See "ATTENTION - Regarding Guide Program Number Set" on page 19. Or perform "Guide Program Number Set" (pg. 70).

Set Stations (A)

Set station names that are registered in your recorder.

Perform steps 1 and 2 of "Storing Channels Manually" on page 64 to access the Confirmation screen before continuing.

1 SELECT ITEM

Press $\Delta \nabla \leftarrow \rightarrow$ until the item you want begins blinking.

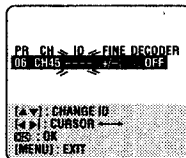
2 ACCESS MANUAL CHANNEL SET SCREEN

Press OK twice.

3 SELECT NEW STATION

Press $\rightarrow$ until the station name (ID) begins blinking, then press $\Delta \nabla$ until the new station's name (ID) you want to store begins blinking.

Registered station names (pg. 67) appear as you press $\Delta \nabla$.



4 SWITCH STATIONS

Press OK.

- The Confirmation screen appears.
- Repeat steps 1 through 4 as necessary.

5 CLOSE CONFIRMATION SCREEN

Press MENU.

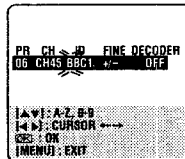
Set Stations (B)

Set station names other than the ones registered in your recorder.

Perform steps 1 and 2 of "Storing Channels Manually" on page 64 to access the Confirmation screen and then perform steps 1 and 2 of "Set Stations (A)" on the left before continuing.

1 SELECT STATION NAME CHARACTER

Press $\rightarrow$ until the first letter of the station name begins blinking.



2 ENTER NEW CHARACTER

Press $\Delta \nabla$ to cycle through the characters (A-Z, 0-9, *, +, -, space) and stop when the desired character is indicated, then press $\rightarrow$ to enter. Enter the remaining characters the same way (maximum of 4). After entering all characters, press OK.

- The Confirmation screen appears.
- If you make a mistake, press $\leftarrow$ until the incorrect character begins blinking. Then enter the correct character by pressing $\Delta \nabla$.

3 CLOSE CONFIRMATION SCREEN

Press MENU.

NOTE:

The characters available for the station name (ID) are A-Z, 0-9, *, +, -, (space) (maximum of 4).

TV Station And ID List

STATION NAME	ID*
Anglia TV	ANGL
ARD	ARD
ARTE	ARTE
BBC Group	BBC
BBC1	BBC1
BBC2	BBC2
Berlin 1	BLN1
Berlin 2	BLN2
Border TV	BORD
Bayern1	BR1
Bayern3	BR3
BRT1	BRT1
BRT2	BRT2
Children Ch	CHLD
Canal +	CH+
CNN	CNN
Channel TV	CHNL
Central TV	CNTR
Channel 4	CH 4
Channel 5	CH 5
DRS	DRS
DR TV	DRTV
DSF	DSF
Euronews	EURN
Euronews	EURO
Eurosports	EURS
France1	FR1
France2	FR2
France3	FR3
Granada TV	GRNA
Grampian TV	GRMP
Hessen1	HR1
Hessen3	HR3
HRT	HRT
HTV	HTV
ITV Network	ITV
Kabelkanal	KABL
London	LNDN
MDR	MDR
MTV	MTV
Nord3	N3
NDR1	NDR1
NDR3	NDR3
NED1	NED1
NED2	NED2
NED3	NED3
Network 2	NET2
NRK	NRK
N-TV	N-TV
Offener Kanal	OKAN
ORF1	ORF1
ORF2	ORF2
ORF3	ORF3
OWL 3	OWL3
Premiere	PRMI
PRO7	PRO7
RAI1	RAI1
RAI2	RAI2
RAI3	RAI3
RB1	RB1
RB3	RB3
Rikisutvarpid-S	RKPS
RTBF 1	RTB1
RTBF 2	RTB2
RTE 1	RTE1
RTL	RTL
RTL 2	RTL2
RTP	RTP

STATION NAME	ID*
SAT	SAT
SAT 1	SAT1
Scottish TV	SCOT
SC4	SC4
SDR	SDR
SDR1	SDR1
SFB1	SFB1
SFB3	SFB3
SKY	SKY
Sky One	SKY1
Sky Net	SKYN
Sport	SPRT
SR 1	SR1
Super RTL	SRTL
STV Test	STVT
STV 1	STV1
STV 2	STV2
Suedwest3	SWR
SWF 1	SWF1
Schweiz4	SWZ4
TYNE TEES	TEES
Text	TEXT
TF1	TF1
TNT int	TNT
TRT int	TRT
TSI	TSI
TSR	TSR
TSW	TSW
TVE	TVE
TV Polonia	TVPA
TVP 1	TVP1
TVP 2	TVP2
TVS	TVS
TV2	TV2
TV5	TV5
Tele Zurich	TZUR
Ulster TV	ULST
Veronica	VERN
VIVA	VIVA
VIVA2	VIV2
VOX	VOX
VTM	VTM
VT4	VT4
West1	WDR1
West3	WDR3
YLE 1	YLE1
YLE 2	YLE2
Yorkshire TV	YORK
ZDF	ZDF
Zurich 1	ZUR1
3SAT	3SAT

* The "ID" abbreviation is what is shown on-screen in lieu of the station name. The "ID" abbreviation is listed in the Confirmation screen and is displayed on the TV screen each time the recorder is tuned to a different station.

TV Station Channel Number Guide

For customers in the U.K.

Only the main stations are listed. There are in addition many relay stations, and full lists are available from the BBC and ITV.

	BBC1	BBC2	ITV	CH4	CH5
London & South-East					
Bluebell Hill	40	46	43	65	—
Crystal Palace	26	33	23	30	37
Dover	50	56	66	53	—
Heathfield	49	52	64	67	—
Oxford	57	63	60	53	49

South-West					
Beacon Hill	57	63	60	53	—
Caradon Hill	22	28	25	32	—
Huntshaw Cross	55	62	59	65	67
Redruth	51	44	41	47	37
Stockland Hill	33	26	23	29	—
Channel Islands					
Fremont Point	51	44	41	47	—

South					
Hannington	39	45	42	66	35
Midhurst	61	55	58	68	—
Rowridge	31	24	27	21	—

West					
Mendip	58	64	61	54	37

East					
Sandy Heath	31	27	24	21	39
Sudbury	51	44	41	47	35
Tacolneston	62	55	59	65	52

Midlands					
Ridge Hill	22	28	25	32	35
Sutton Coldfield	46	40	43	50	37
The Wrekin	26	33	23	29	35
Waltham	58	64	61	54	35

North					
Belmont	22	28	25	32	56
Emley Moor	44	51	47	41	37

North-West					
Caldbeck	30	34	28	32	56
Winter Hill	55	62	59	65	48

North-East					
Bilsdale West Moor	33	26	29	23	35
Chatton	39	45	49	42	—
Pontop Pike	58	64	61	54	68

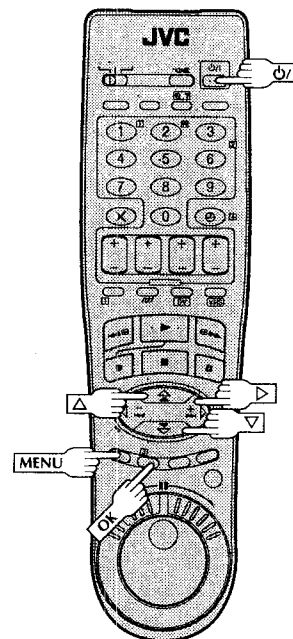
Scotland					
Angus	57	63	60	53	—
Black Hill	40	46	43	50	37
Sandale	22	—	—	—	—
Caldbeck	—	34	28	32	56
Creigkelly	31	27	24	21	48
Darvel	33	26	23	29	35
Durris	22	28	25	32	67
Eitshal	33	26	23	29	—
Keelylang Hill	40	46	43	50	—
Knock More	33	26	23	29	—
Rosemarkie	39	45	49	42	67
Rumster Forest	31	27	24	21	—
Selkirk	55	62	59	65	52

Wales					
Blaenplwyf	31	27	24	21	56
Carmel	57	63	60	53	—
Llanddona	57	63	60	53	—
Moel-y-Parc	52	45	49	42	—
Presely	46	40	43	50	37
Wenvoe	44	51	41	47	—

Northern Ireland					
Brougher Mountain	22	28	25	32	—
Divis	31	27	24	21	37
Limavady	55	62	59	65	—

Clock Set

Turn on the TV and select the AV mode.



Just Clock

The Just Clock function provides accurate time keeping through automatic adjustments at regular intervals, by reading data from a PDC signal.

The Just Clock option can be set "ON" or "OFF" at the Clock Set screen (the default setting is "ON"). Press **OK** until the Just Clock setting begins blinking, then press $\Delta \nabla$ to change the setting.

IMPORTANT: If you turn the Just Clock function off, the accuracy of your recorder's built-in clock may be impaired, which could adversely affect timer recording.

NOTES:

- Just Clock (when set to "ON") adjusts the recorder's built-in clock every hour, except for 23:00, 0:00, 1:00 and 2:00.
- Just Clock is not effective when ...
 - the recorder's power is on.
 - the recorder is in the Timer mode.
 - a difference of more than 3 minutes exists between the built-in clock's time and the actual time.
- If Just Clock is set to "ON", the recorder's clock is automatically adjusted at the start/end of Summer Time.
- Just Clock may not function properly in poor reception conditions.

IMPORTANT

If you performed Auto Set Up (pg. 8), Preset Download (pg. 9) or Auto Channel Set (pg. 62), without ever having set the clock previously, the recorder's built-in clock is also set automatically.

Perform the following steps only if —

- Auto Clock Set has not been performed correctly by Auto Set Up, Preset Download or Auto Channel Set.
- or
- the recorder's memory backup has expired.
- or
- you want to change Just Clock setting (pg. "Just Clock" in the left column).

TURN THE RECORDER ON

Press Φ/I .

ACCESS MAIN MENU SCREEN

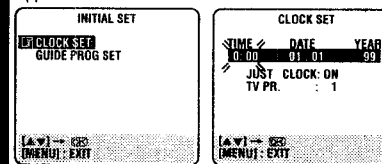
Press **MENU**.

ACCESS INITIAL SET SCREEN

Move the highlight bar (pointer) to "INITIAL SET" by pressing $\Delta \nabla$, then press **OK** or $\triangleright$.

ACCESS CLOCK SET SCREEN

Move the highlight bar (pointer) to "CLOCK SET" by pressing $\Delta \nabla$, then press **OK** or $\triangleright$. The Clock Set screen appears.



SET DATE AND TIME

Press $\Delta \nabla$ to set the time, then press **OK** or $\triangleright$. The "date" display begins blinking. Repeat the same procedure to set the date and year.

- When you set the time, press and hold $\Delta \nabla$ to change the time by 30 minutes.
- When you set the date, press and hold $\Delta \nabla$ to change the date by 15 days.

SET JUST CLOCK

The default setting is "ON". Set as desired by pressing $\Delta \nabla$, then press **OK** or $\triangleright$.

- For the Just clock function, pg. "Just Clock" on the left.
- If you set to "OFF", you can disregard the next step as you won't be able to receive regular clock adjustments.

SET CLOCK DATA SOURCE PRESET

The recorder is preset to receive clock setting and adjustment data from preset position 1. Press $\Delta \nabla$ to set the preset position to the number representing the station transmitting clock setting data (BBC1, BBC2, etc.), then press **OK** or $\triangleright$.

START CLOCK OPERATION

Press **MENU**.

VIDEO Plus+ Setup

IMPORTANT

Normally, Auto Set Up (pg. 8), Preset Download (pg. 9) or Auto Channel Set (pg. 62) sets the Guide Program Numbers automatically. You need to set the Guide Program Numbers manually only in the following cases.

- When timer-programming with VIDEO Plus+, the preset position, where the station you wish to record is received on your recorder, is not selected or when you add a channel after Auto Set Up or Auto Channel Set has taken place.
 - Set the Guide Program Number for that station manually.
- When you delete a channel or change preset positions manually after Auto Set Up or Auto Channel Set has taken place.
 - Set the Guide Program Numbers for all the receivable stations manually.
- When you wish to timer-record a satellite programme with VIDEO Plus+.
 - Set the Guide Program Numbers for all satellite broadcasts received on your satellite receiver.

Turn on the TV and select the AV mode.

Guide Program Number Set

1 ACCESS MAIN MENU SCREEN

Press **MENU**.

2 ACCESS INITIAL SET SCREEN

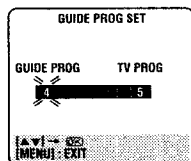
Press $\Delta \nabla$ to move the highlight bar (pointer) to "INITIAL SET", then press **OK** or $\triangleright$.

3 ACCESS GUIDE PROG SET SCREEN

Press $\Delta \nabla$ to move the highlight bar (pointer) to "GUIDE PROG SET", then press **OK** or $\triangleright$.

4 ENTER GUIDE PROG NUMBER

Press $\Delta \nabla$ or **NUMBER** keys to enter the Guide Program number for the desired station as shown in the TV listings. Then press **OK** or $\triangleright$.

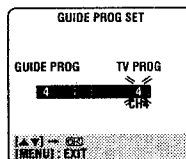


(Ex.) When inputting the Guide Program number 4 for CH4.

5 ENTER RECEIVING PRESET POSITION NUMBER

Press $\Delta \nabla$ or **NUMBER** keys to input the number of the recorder's preset position on which the Guide Program number's broadcast is received. Then press **OK** or $\triangleright$.

- If the satellite broadcast is received on your recorder's auxiliary channel "L-2", select "L-2" for the preset position.
- Repeat steps 4 and 5 as necessary.



(Ex.) If CH4 is received on preset position 4.

6 RETURN TO NORMAL SCREEN

Press **MENU**.

Guide Program Number

"Guide Program (GUIDE PROG) number" refers to the assigned TV station numbers, according to broadcast area, for VIDEO Plus+ timer recording. The Guide Program numbers can be found in most TV listings.

Questions And Answers

PLAYBACK

Q. What happens if the end of the tape is reached during playback or search?

A. The tape is automatically rewound to the beginning.

Q. Can the video recorder indefinitely remain in the still mode?

A. No. It stops automatically after 5 minutes (VHS deck) or 3 minutes (DV deck) to protect the heads.

Q. When returning from multi-speed search to normal playback, the picture is disturbed. Should I be concerned about this?

A. No, it is normal.

Q. Sometimes, during Index Search, the video recorder can't find the programme I want to see. Why not?

A. There may be index codes too close together.

RECORDING

Q. When I pause and then resume a recording, the end of the recording before the pause is overlapped by the beginning of the continuation of recording. Why does this happen?

A. This is normal. It reduces distortion at the pause and resume points.

Q. Can the video recorder indefinitely remain in the Record-Pause mode?

A. No. The video recorder shuts off automatically after 5 minutes (VHS deck) or 3 minutes (DV deck) to protect the heads.

Q. What happens if the tape runs out during recording?

A. The video recorder automatically rewinds it to the beginning or, if Timer Recording, the cassette is ejected.

TIMER RECORDING

Q. "O" and "D" remain lit on the display panel. Is there a problem?

A. No. This is a normal condition for a timer recording in progress.

Q. Can I programme the timer while I'm watching a tape or a TV broadcast?

A. You won't see the picture as it is replaced by the on-screen menu, but the audio from the program or tape you're viewing can be heard.

Q. Is it possible to timer-record a TV programme broadcast in 2000?

A. Yes, it is possible.

ATTENTION

This recorder contains microcomputers. External electronic noise or interference could cause malfunctioning. In such cases, switch the recorder off and unplug the mains power cord. Then plug it in again and turn the recorder on. Take out the cassette. After checking the cassette, operate the unit as usual.

Troubleshooting

Before requesting service for a problem, use this chart to see if you can correct the trouble yourself. Small problems are often easily corrected, and this can save you the trouble of sending your video recorder off for repair.

POWER

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. No power is applied to the recorder.	The mains power cord is disconnected.	Connect the mains power cord.
2. The clock is functioning properly, but the recorder cannot be powered.	"⊙" is displayed on the display panel with Auto Timer set to "OFF".	Press the ⊙ button to turn the "⊙" indicator off.
3. The remote control won't function.	- The batteries are discharged. - The VCR/TV/SAT switch is in the wrong position.	Replace the dead batteries with new ones. Set the switch to the position corresponding with the unit you want to operate.

TAPE TRANSPORT

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The tape does not run during recording.	"⏏" is displayed on the display panel.	Press PLAY to turn the "⏏" indicator off.
2. The tape will not rewind or fast-forward.	The tape is already fully rewound or fast-forwarded.	Check the cassette.

PLAYBACK

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. The playback picture does not appear while the tape is running.	If you're using the AV or S-VIDEO connection, the TV receiver is not set to the AV mode.	If you are using the AV or S-VIDEO connection, set the TV to its AV mode.
2. Noise appears during visual search.	This is normal.	
3. Noise appears during normal playback (VHS deck).	The automatic tracking mode is engaged.	Try manual tracking. (ⓘ pg. 26)
4. The playback picture is blurred or interrupted while TV broadcasts are clear.	The video heads may be dirty.	Consult your JVC dealer.
5. Breaks are noticeable in Hi-Fi soundtrack (VHS deck).	Automatic tracking is engaged.	Engage and adjust tracking manually. (ⓘ pg. 26)

RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Recording cannot be started.	VHS deck There is no cassette loaded, or the cassette loaded has had its Record Safety tab removed. DV deck There is no cassette loaded, or the cassette loaded has had its erase protection switch set to "SAVE".	Insert a cassette, or using adhesive tape, reseal the slot where the tab was removed. Insert a cassette, or set the erase protection switch to "REC".
2. TV broadcasts cannot be recorded.	"L-1", "L-2" or "L-3" has been selected as the input mode.	Set to the desired channel.
3. Tape-to-tape editing is not possible.	- The source (another video recorder, camcorder) has not been properly connected. - All necessary power switches have not been turned on. - The input mode is not correct.	Confirm that the source is properly connected. Confirm that all units' power switches are turned on. Set the input mode to "L-1", "L-2" or "L-3".

RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
4. Camcorder recording is not possible.	- The camcorder has not been properly connected. - The input mode is not correct.	Confirm that the camcorder is properly connected. Set the input mode to "L-1", "L-2" or "L-3".
5. Audio dubbing is not possible.	"SOUND MODE" on the DV Mode Set Menu had been set to "48kHz" at the original recording. - The tape speed had been set to LP at the original recording.	Set "SOUND MODE" to "32kHz" at the original recording (ⓘ pg. 31). Set the tape speed to SP at the original recording.
6. Monitoring the audio-dubbed sound is not possible during audio dubbing using the DV deck.	This is normal.	Monitor the sound using the connected devices.
7. The programmed memory of Random Assemble Editing is disappeared.	The memory backup time has expired.	Perform Random Assemble Editing again.
8. When performing Tape Dubbing, the beginning of the dubbing start point is not dubbed.	This is normal.	
9. When starting Tape Dubbing, the recorder stops dubbing after a few seconds and ejects both the VHS and Mini DV tapes.	The NTSC tape is played back on the VHS deck.	Dubbing from the NTSC tape to the Mini DV tape is not possible.
10. When starting Normal Dubbing, the recorder stops dubbing after a few seconds.	The NTSC tape is played back on the VHS deck.	Dubbing from the NTSC tape to the Mini DV tape is not possible.

TIMER RECORDING

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Timer recording won't work.	- The clock and/or the timer have been set incorrectly. - The timer is not engaged.	Re-perform the clock and/or timer settings. Press ⊙ and confirm that "⊙" is displayed on the display panel.
2. Timer programming is not possible.	Timer recording is in progress.	Timer programming can't be performed while a timer recording is in progress. Wait until it finishes.
3. "⊙" and "⏏" on the display panel won't stop blinking.	The timer is engaged but there's no cassette loaded.	VHS deck Load a cassette with the Record Safety tab intact, or cover the hole using adhesive tape. DV deck Load a cassette with the erase protection switch set to "REC".
4. The cassette is automatically ejected, and "⊙" and "⏏" on the display panel won't stop blinking.	VHS deck The loaded cassette has had its Record Safety tab removed. DV deck The loaded cassette has had its erase protection switch set to "SAVE".	Remove the cassette and cover the hole with adhesive tape, or insert a cassette with the Record Safety tab intact. Remove the cassette and set the erase protection switch to "REC".
5. "⊙" blinks for 10 seconds and the Timer mode is disengaged.	⊙ has been pressed when there are no programs in memory, or the timer record information has been programmed incorrectly.	Check the programmed data and re-program as necessary, then press ⊙ again.
6. The cassette is automatically ejected, the power shuts off and "⊙" and "⏏" won't stop blinking.	The end of the tape was reached during timer recording.	The programme may not have been recorded in its entirety. Next time make sure you have enough time on the tape to record the entire programme.

TIMER RECORDING

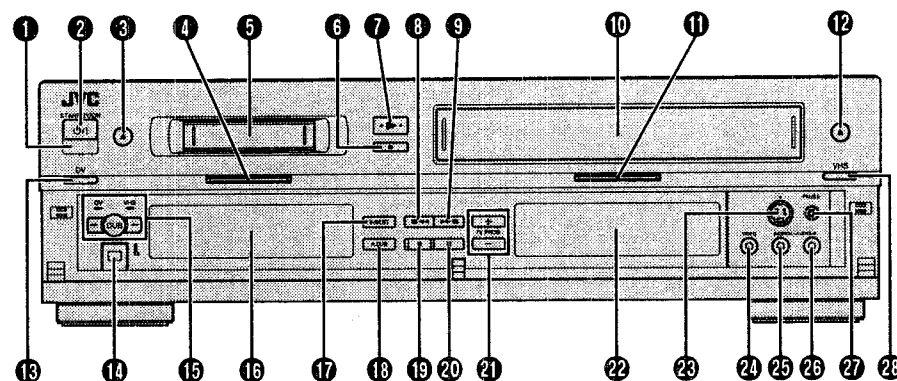
SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
7. VIDEO Plus+ does not timer-record properly.	The recorder's channel positions have been set incorrectly.	Refer to "Guide Program Number Set" and re-perform the procedure (pg. 70).

OTHER PROBLEMS

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
1. Whistling or howling is heard from the TV during camcorder recording.	- The camcorder's microphone is too close to the TV. - The TV's volume is too high.	Position the camcorder so its microphone is away from the TV. Turn the TV's volume down.
2. When scanning channels, some of them are skipped over.	Those channels have been designated to be skipped.	If you need the skipped channels, restore them (pg. 64).
3. The channel cannot be changed.	Recording is in progress.	Press PAUSE to pause the recording, change channels, then press PLAY to resume recording.
4. Channel settings that were made manually seem to have changed or disappeared.	After the manual settings were made, Auto Channel Set was performed.	Perform manual setting again.
5. No channels are stored in the recorder's memory.	The TV aerial cable was not connected to the recorder when Auto Set Up was performed.	Connect the TV aerial cable to the recorder properly and turn off the recorder power once, then turn the recorder power back on again. The recorder will try Auto Set Up again (pg. 8).
6. The remote control won't operate the TV or satellite tuner.	The remote control brand setting is incorrect.	Re-set the remote control to the correct brand (pg. 50, 51).

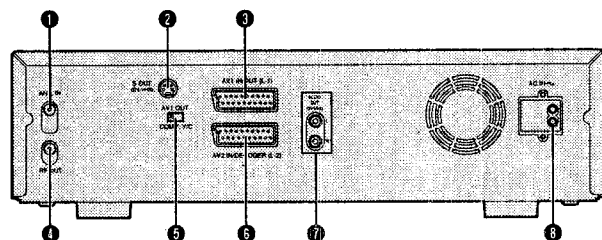
Index

FRONT VIEW



- 1 **Infrared Beam Receiving Window** is where remote control should be aimed when in use.
- 2 **STANDBY/ON** ψ /I Button turns recorder on/off (loading a cassette also turns power on).
- 3 **DV EJECT Button** ejects DV tape during Stop mode. pg. 12
- 4 **DV Indicator** lights when the DV button is pressed. pg. 12
- 5 **Mini DV Cassette Loading Slot** is where cassette is inserted; door closes, "cassette loaded" indicator lights up on DV display panel.
- 6 **STOP Button** stops tape. pg. 12
- 7 **PLAY Button** plays back tape pg. 12; cancels Pause, Still, Slow, Search modes. pg. 13
- 8 **Rewind [REW] Button** rewinds tape; initiates high-speed reverse search. pg. 12, 13
- 9 **Fast Forward [FF] Button** fast-forwards tape; initiates high-speed forward search. pg. 12, 13
- 10 **VHS Cassette Loading Slot** is where cassette is inserted; door closes, "cassette loaded" indicator lights up on VHS display panel.
- 11 **VHS Indicator** lights when the VHS button is pressed. pg. 12
- 12 **VHS EJECT Button** ejects VHS tape during Stop mode. pg. 12
- 13 **DV Button** enables operations on DV deck. pg. 12
- 14 **DV IN/OUT connector (i.Link*)** enables connection to digital video devices. pg. 40
* i.Link refers to the IEEE1394-1995 industry specification and extensions thereof. The  logo is used for products compliant with the i.Link standard.
- 15 **Dubbing [DUB] Button** starts Tape Dubbing. pg. 34
Dubbing Direction [→/←] Buttons select dubbing direction. pg. 34
- 16 **DV Display Panel** provides clear view of various displays and indicators for DV deck. pg. 77
- 17 **INSERT Button** engages Insert Editing mode. pg. 46
- 18 **A. DUB Button** engages Audio Dubbing mode. pg. 44
- 19 **RECORD Button** starts regular recording (press once), Instant Timer Recording (press twice); sets duration of ITR. pg. 15, 17
- 20 **PAUSE Button** stops tape temporarily during recording pg. 15; stops tape temporarily during playback; plays back frame by frame with each additional press. pg. 13
- 21 **TV PROG +/- Buttons** select a preset position. pg. 15
- 22 **VHS Display Panel** provides clear view of various displays and indicators for VHS deck. pg. 76
- 23 **S-VIDEO Input Connector** enables S-VIDEO connection to camcorder or second recorder. pg. 40
- 24 **VIDEO Input Connector** enables easy connection of video output from another recorder or camcorder for editing. pg. 40
- 25 **AUDIO Input Connector [L]** enables easy connection of audio output (mono) from another recorder, camcorder or other source for editing. pg. 40
- 26 **AUDIO Input Connector [R]** enables easy connection of audio output (Hi-Fi) from another recorder, camcorder or other source for editing. pg. 40
- 27 **Remote PAUSE Connector** enables connection to second recorder equipped with R.A. Edit connector, or to JVC camcorder equipped with Master Edit Control, for easy editing. pg. 40
- 28 **VHS Button** enables operations on VHS deck. pg. 12

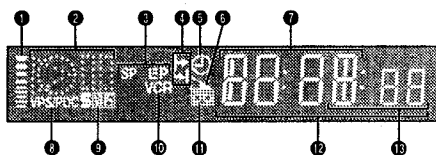
REAR VIEW



- 1 **ANT. IN Connector** enables connection of aerial. *pg. 6, 7*
- 2 **S OUT Connector** enables S-VIDEO connection to TV or second recorder. *pg. 7, 42*
- 3 **AV1 IN/OUT Connector** enables AV connection to TV or second recorder; input recordable when "L-1" selected. *pg. 6, 42*
- 4 **RF OUT Connector** enables connection to aerial terminal of TV receiver. *pg. 6, 7*
- 5 **AV1 OUT Switch** selects the type of signal output via the 21 pin AV1 IN/OUT connector. *pg. 6, 57*

- 6 **AV2 IN/DECODER Connector** enables connection of satellite receiver, decoder or second recorder; input recordable when "L-2" selected. *pg. 42, 57*
- 7 **AUDIO OUT (L/R) Connectors** enable connection of audio cassette recorder, TV or second video recorder for dubbing. *pg. 58*
- 8 **Mains Power Inlet** enables connection to a mains outlet using the provided Mains Power Cord. *pg. 6, 7*

VHS DISPLAY PANEL



- 1 **B.E.S.T. Picture System Display** lights from bottom to top while B.E.S.T. is active. *pg. 24*
- 2 **Symbolic Mode Indicators**

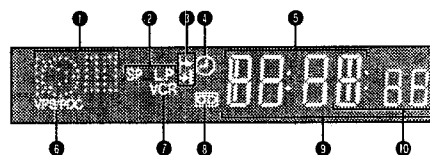
PLAY: FF/REW VARIABLE SEARCH:	▶	STILL: SLOW:	▶
		RECORD:	○
		RECORD PAUSE:	○
AUDIO DUBBING:			⚙
AUDIO DUBBING PAUSE:			⚙
INSERT:			⏸
INSERT PAUSE:			⏸
AUDIO DUBBING INSERT:			⚙
AUDIO DUBBING INSERT PAUSE:			⚙

- 3 **Tape Speed Indicators** display mode of recording; light during Record or Play mode. *pg. 15*
* EP is only for NTSC playback.

- 4 **Programme Time Indicators** show the programme start time (▶) and the programme stop time (▶) for timer-recording. *pg. 20*
- 5 **"Timer" Indicator** lights when ⏸ has been pressed to engage Timer mode. *pg. 19, 21*
- 6 **Tape Remaining Time Indicator** displays time remaining on tape when certain buttons are pressed. *pg. 17*
- 7 **Channel Display** shows preset position where the station currently being received is stored.
Clock Display shows current time. *pg. 10*
- 8 **PDC Indicator** lights when PDC has been engaged for timer recording. *pg. 19, 21*
* VPS (Video Programme System) recording is not currently available in the U.K. and not possible with this recorder.
- 9 **S-VHS Indicator** lights when a cassette marked S-VHS is inserted with S-VHS mode set to "AUTO", and when an S-VHS-recorded tape is played back. *pg. 23*
- 10 **VCR Indicator** lights when the video recorder is in the video mode. At this point, the TV automatically enters AV mode. *pg. 12*
- 11 **"Cassette Loaded" Mark** lights once a cassette is inserted; remains lit until cassette ejected.
- 12 **Counter** shows time elapsed since playback or recording began.
With displayed, shows time remaining from current tape position to end of tape (*pg. 17*). Counter, Preset Position*, Clock and Tape Remaining Time Display appear alternately when (DISPLAY) is pressed.
* Preset Position is not displayed during playback.

- 13 **Mode** shows external input mode selected (L-1, L-2 or L-3).

DV DISPLAY PANEL

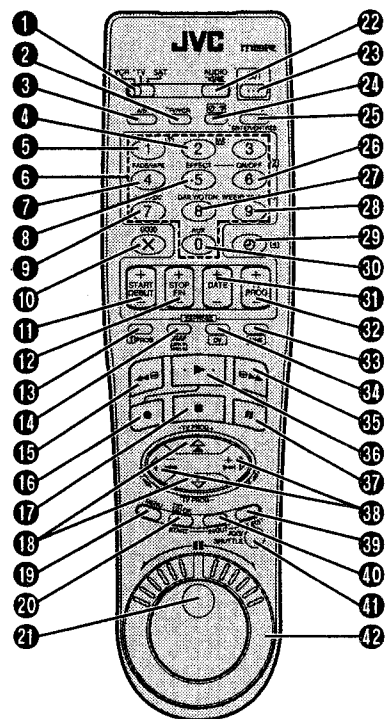


1 Symbolic Mode Indicators

PLAY: FF/REW VARIABLE SEARCH:	▶	STILL: SLOW:	▶
		RECORD:	○
		RECORD PAUSE:	○
AUDIO DUBBING:			⚙
AUDIO DUBBING PAUSE:			⚙
INSERT:			⏸
INSERT PAUSE:			⏸
AUDIO DUBBING INSERT:			⚙
AUDIO DUBBING INSERT PAUSE:			⚙

- 4 **Tape Speed Indicators** display mode of recording; light during Record or Play mode. *pg. 15*
- 5 **Programme Time Indicators** show the programme start time (▶) and the programme stop time (▶) for timer-recording. *pg. 20*
- 6 **"Timer" Indicator** lights when ⏸ has been pressed to engage Timer mode. *pg. 19, 21*
- 7 **Channel Display** shows preset position where the station currently being received is stored.
Clock Display shows current time. *pg. 10*
- 8 **PDC Indicator** lights when PDC has been engaged for timer recording. *pg. 19, 21*
* VPS (Video Programme System) recording is not currently available in the U.K. and not possible with this recorder.
- 9 **VCR Indicator** lights when the video recorder is in the video mode. At this point, the TV automatically enters AV mode. *pg. 12*
- 10 **"Cassette Loaded" Mark** lights once a cassette is inserted; remains lit until cassette ejected.
- 11 **Time Code Display** shows time elapsed since playback or recording began. *pg. 14*
- 12 **Mode** shows external input mode selected (L-1, L-2 or L-3).

REMOTE CONTROL



Buttons with a small dot on the left side of the name can also be used to operate your TV.
pg. 50

- 1 **VCR/TV/SAT Switch** enables remote control of VCR or connected TV or satellite receiver.
pg. 50, 51
- 2 **TV/VCR Button** switches connected TV's mode between TV and AV. pg. 12, 15
- 3 **A/B Code Button** enables setting of recorder to respond to A- or B-code command signals. pg. 49
- 4 **Zoom Button [W]** zooms out on an image during playback. pg. 28
- 5 **Zoom Button [T]** zooms in on an image during playback. pg. 28
- 6 **NUMBER Keys** are used in preset position selection pg. 15, Video Plus+ timer programming pg. 18.
- 7 **FADE/WIPE Button** selects Fade/Wipe effect at Random Assemble Editing. pg. 37
- 8 **EFFECT Button** selects playback effect during playback or at Random Assemble Editing.
pg. 28, 37
- 9 **PDC Button** enables/disables PDC recording.
pg. 19, 21
** VPS (Video Programme System) recording is not currently available in the U.K. and not possible with this recorder.*
- 10 **X Button** cancels timer-programme. pg. 22
- 11 **0000 Button** resets counter to 0:00:00. pg. 17
- 12 **START +/- Button** accesses Regular Program screen; inputs programme Start Time. pg. 20
- 13 **STOP +/- Button** inputs programme Stop Time.
pg. 20
- 14 **PROG Button** accesses Video Plus+ Program screen. pg. 18
- 15 **Auto Tracking Button (///)** enables/disables auto tracking mode during playback pg. 26
- 16 **SP/LP Button** selects tape speed. pg. 15
- 17 **Rewind [REW] Button** — same as button on recorder. pg. 12, 13
- 18 **Record Button** — same as button on recorder.
pg. 15
- 19 **Stop Button** — same as button on recorder.
pg. 12
- 20 **Δ▽ Button** is used for selection in on-screen menus. pg. 11
TV PROG +/- selects the connected TV's/satellite receiver's channel. pg. 50, 51
- 21 **MENU Button** accesses Menu screen. pg. 11
- 22 **OK Button** enters selections made in on-screen menus. pg. 11
START Button starts Random Assemble Editing.
pg. 36
- 23 **JOG Dial** plays back frame by frame during Still or Play mode. pg. 13
- 24 **AUDIO Button** changes output sound mode.
pg. 30
TV Muting Button mutes sound of connected TV. pg. 50

- 25 **STANDBY/ON ⏻/⏻ Button** — same as button on recorder.
- 26 **? Button** accesses Program screens/displays to check the programme that you have programmed (next programme's information screen/display appears each time button is pressed). pg. 22
- 27 **--:-- (DISPLAY) Button** switches display between clock time, tape remaining time, counter readings and preset position*. pg. 17
** Preset position is not displayed during playback.*
ENTER Button is used for TV channel selection.
pg. 50
- 28 **ON/OFF Button** turns on and off the playback effect. pg. 28
- 29 **DAILY Button** enables timer recording of daily serials. pg. 19, 21
- 30 **WEEKLY Button** enables timer recording of weekly serials. pg. 19, 21
- 31 **⏻ Button** engages timer-standby mode.
pg. 19, 21
- 32 **AUX Button** selects recorder's auxiliary input mode. pg. 40, 42
- 33 **DATE +/- Button** inputs date of programme for timer recording. pg. 20
- 34 **TV PROG +/- Button** — same as button on recorder. pg. 15
- 35 **VHS Button** enables operations on VHS deck.
pg. 12
- 36 **DV Button** enables operations on DV deck.
pg. 12
- 37 **Fast Forward [FF] Button** — same as button on recorder. pg. 12, 13
- 38 **Play Button** — same as button on recorder.
pg. 12, 13
- 39 **Pause Button** — same as button on recorder.
pg. 13
- 40 **◀▶ Button** initiates functions such as Index Search pg. 29, variable-speed search, frame by frame playback. pg. 13
TV ▲/▼ Button controls volume of connected TV. pg. 50
- 41 **R.A. EDIT Button** accesses R.A. EDIT screen.
pg. 36
- 42 **IN/OUT Button** registers edit-in or edit-out point for Random Assemble Editing. pg. 36
- 43 **JOG/SHUTTLE Button** enables use of the remote control's JOG dial/SHUTTLE ring.
pg. 13
- 44 **SHUTTLE Ring** performs forward and reverse slow-motion and search during Still or Play mode. pg. 13

How To Use

The remote control can operate most of your video recorder's functions, as well as basic functions of TV sets and satellite receivers of JVC and other brands. pg. 50, 51.

- Point the remote control toward the sensor window.
- The maximum operating distance of the remote control is about 8 m.

NOTES:

- When inserting the batteries, be sure to insert in the correct directions as indicated under the battery cover.
- If the remote control doesn't work properly, remove its batteries, wait a short time, replace the batteries and then try again.

SECTION 1 DISASSEMBLY

1.1 HOW TO REMOVE THE MAJOR PARTS

1.1.1 Introduction

This set is a double-deck video recorder integrating a Mini DV deck and a VHS deck. Its internal structure is divided into three sections that include the power supply, VHS and DV sections. Therefore, the removal of major parts will also be described under three separate sections as listed below.

1. COMMON section
2. VHS section
3. DV section

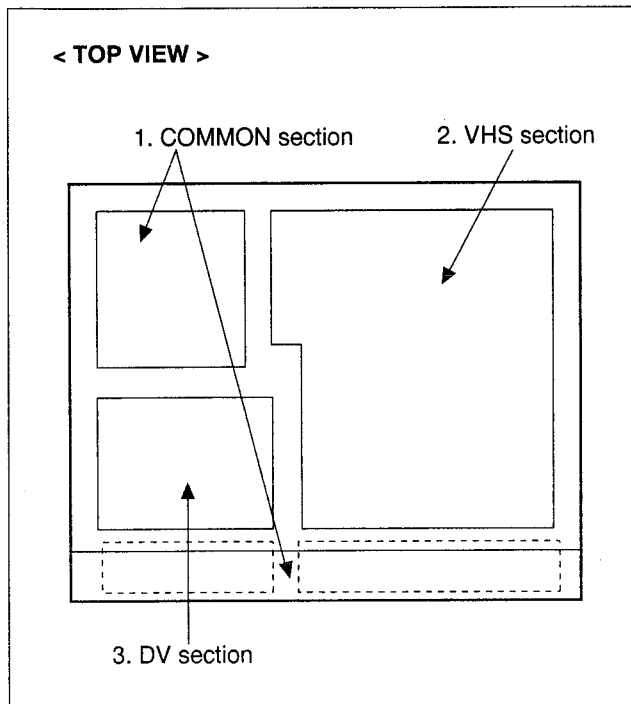


Fig. 1-1-1

1.2 HOW TO READ THE DISASSEMBLY AND ASSEMBLY

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	Top cover	COM1	7(S1), 2(L1), (L2)	—
②	Front panel assembly	COM2	8(L3), CN7507(WR1), CN3011(WR2)	<NOTE 1, 2,3,4>
③	Display board assembly, Display/SW board assembly, SW board assembly, LED1,2 board assembly	COM3	16(S2), (L4)	—
④	SW REG board assembly	COM4	2(S3), 2(S4), CN5301(WR3), Shield plate, (SD1)	<NOTE 1, 5, 6>
⑤	Regulator board assembly	COM5	(L5), (L6), (L7), CN5322(WR4), CN5321(WR5), CN5326(WR6), CN5325(WR7), CN5323(WR8)	<NOTE 1>
⑥	Rear cover	COM6	5(S5), 6(S6), Fan motor	<NOTE 7,8>
(1)	(2)	(3)	(4)	(5)

(1) Order of steps in Procedure

When reassembling, perform the step (s) in the Reverse order. These numbers are also used as the identification (location) NO. of parts figures.

(2) Part name to be removed or installed.

(3) Fig. No. showing procedure or parts location.

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped, or unsoldered.

S = Screw

SD = Soldered point

L = Locking tab

P = Spring

W = Washer

CNxx = Remove the wire (WRxx) from the Connector (CNxx)

NOTE : The bracketed () WR of the connector symbol are assigned nos. in priority order and do not correspond to those on the spare parts list.

(5) Adjust information for installation.

1.3 DISCONNECTION OF CONNECTORS (WIRES)

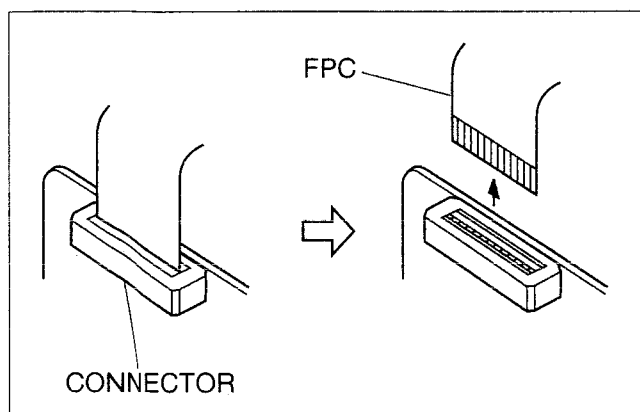


Fig. 1-3-1

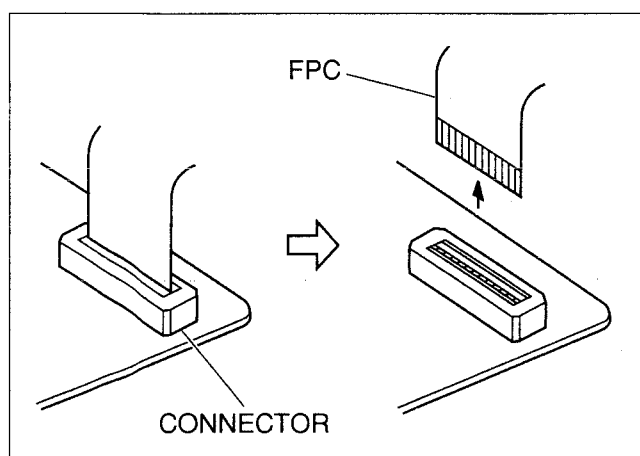


Fig. 1-3-2

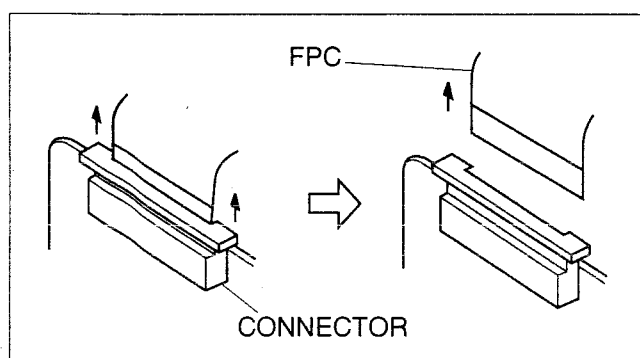


Fig. 1-3-3

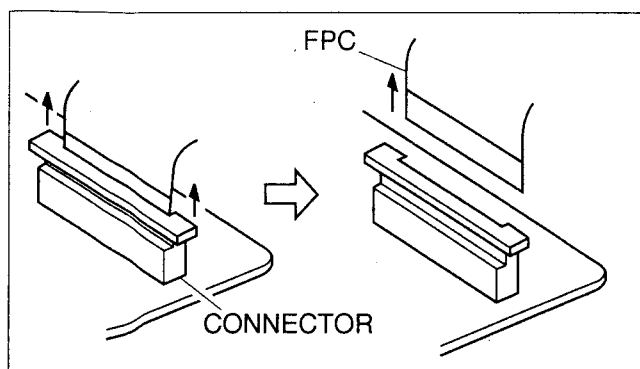


Fig. 1-3-4

1.4 SCREWS USED CABINET COMPONENTS AND BOARD ASSEMBLIES

Table 1-1-1 below shows the symbols, shapes, colours and part numbers of screw that are used in the cabinet components and board assemblies and are appearing in the disassembling/reassembling diagrams in this manual. When screwing them again in reassembling, be sure to use them correctly referring to the following table.

NOTE: Screw that are asterisked (marked with*) in the shape column are fixed with screw lock agent. If such the screw is once removed, never use it again.

SYMBOL	SHAPE	PARTS NO.	COLOUR
S1		QYTDST3006R	SILVER
S2		QYTDSF2606Z	GOLD
S3		QYTD SG3008M	BLACK
S4		QYTDST3006Z	GOLD
S5		QYTDST3006M	BLACK
S6		QYTDSF3008M	BLACK
S7		QYTDSF3010Z	GOLD
S8		SPST2606Z	GOLD
S9		SDST2610Z	GOLD
S10		QYTDST2610Z	GOLD
S11		QYTDSF4012Z	GOLD
S12		QYTDSP2004Z	GOLD
S13		QYTDST2004Z	GOLD
S14		QYTDST2005Z	GOLD
S15		YQ43893	SILVER

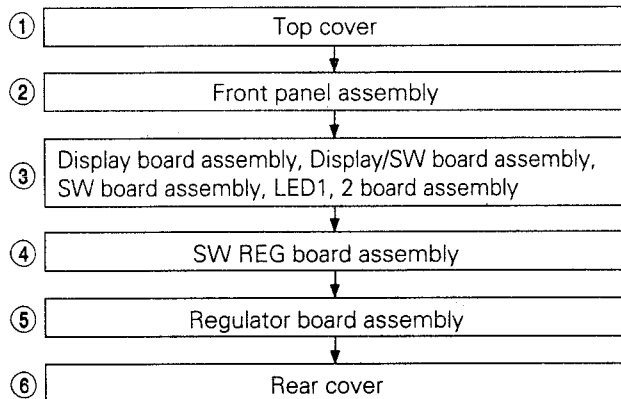
Table 1-4-1

1.5 HOW TO REMOVE THE MAJOR PARTS <COM section>

1.5.1 Disassembly flow chart

This flowchart shows the disassembly procedure for the exterior parts and electrical parts.

Basically, reverse this procedure when assembling them.



1.5.2 Disassembly/assembly method <COM section>

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	Top cover	COM1	7(S1), 2(L1), (L2)	—
②	Front panel assembly	COM2	8(L3), CN7507(WR1), CN3011(WR2)	<NOTE 1, 2,3,4>
③	Display board assembly, Display/SW board assembly, SW board assembly, LED1, 2 board assembly	COM3	16(S2), (L4)	—
④	SW REG board assembly	COM4	2(S3), 2(S4), CN5301(WR3), Shield plate, (SD1)	<NOTE 1, 5, 6>
⑤	Regulator board assembly	COM5	(L5), (L6), (L7), CN5322(WR4), CN5321(WR5), CN5326(WR6), CN5325(WR7), CN5323(WR8)	<NOTE 1>
⑥	Rear cover	COM6	5(S5), 6(S6), Fan motor	<NOTE 7,8>

<NOTE 1>

When attaching the FPC, be sure to connect it in the correct orientation.

<NOTE 2>

When attaching the front panel assy, make sure that the door openers of both decks (DV, VHS) are in the down position.

<NOTE 3>

When attaching the front panel assy, be careful not to damage the DV terminals.

<NOTE 4>

When attaching the FPC take care that it is not caught. Pass the DV-side FPC between the base (2) and DV main board assy. Pass the two VHS-side FPCs below the base (1).

<NOTE 5>

During assembly, be sure to fit the power socket inside the rear cover frame and take care not to damage it.

<NOTE 6>

When removing the shield plate from the switching regulator board assy, take care not to peel off the pattern on the soldered side.

<NOTE 7>

Perform the work by leaving fan motor attached to the rear cover except when replacing the fan motor.

When attaching the rear cover, please be careful with the wiring.

<NOTE 8>

Take care not to damage the switch (AV1 OUT) during assembly.

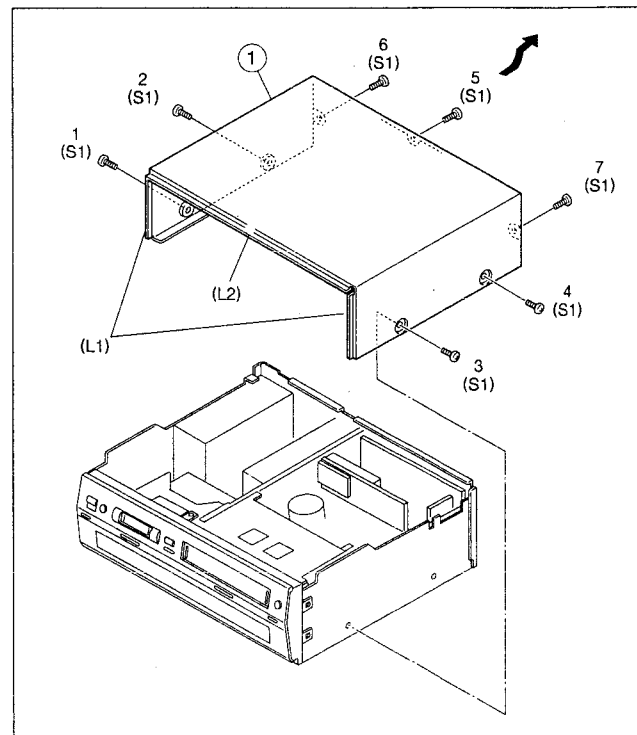


Fig. COM1

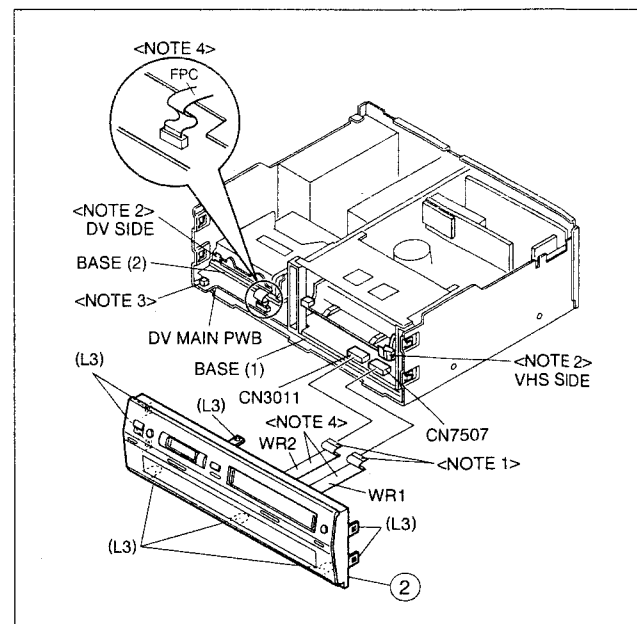


Fig. COM2

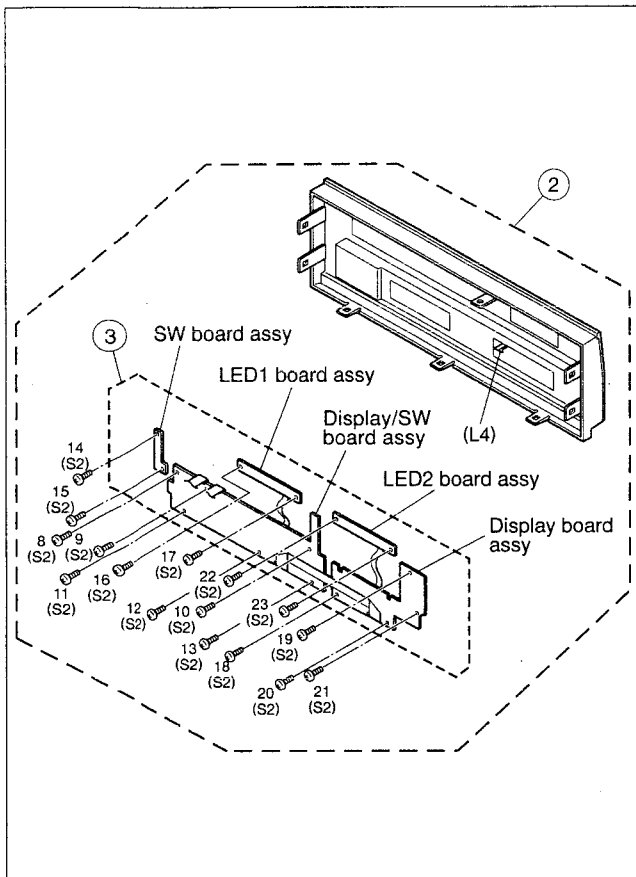


Fig. COM3

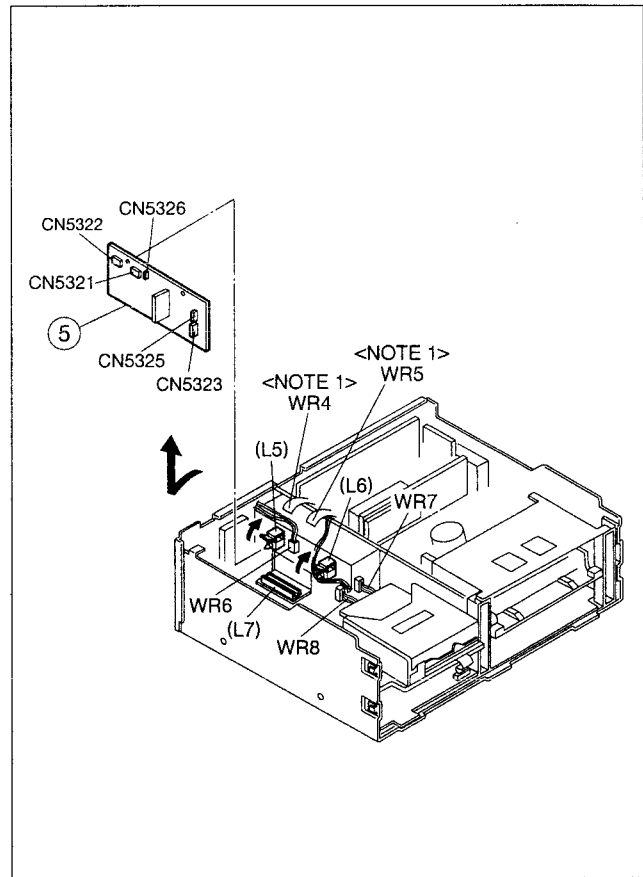


Fig. COM5

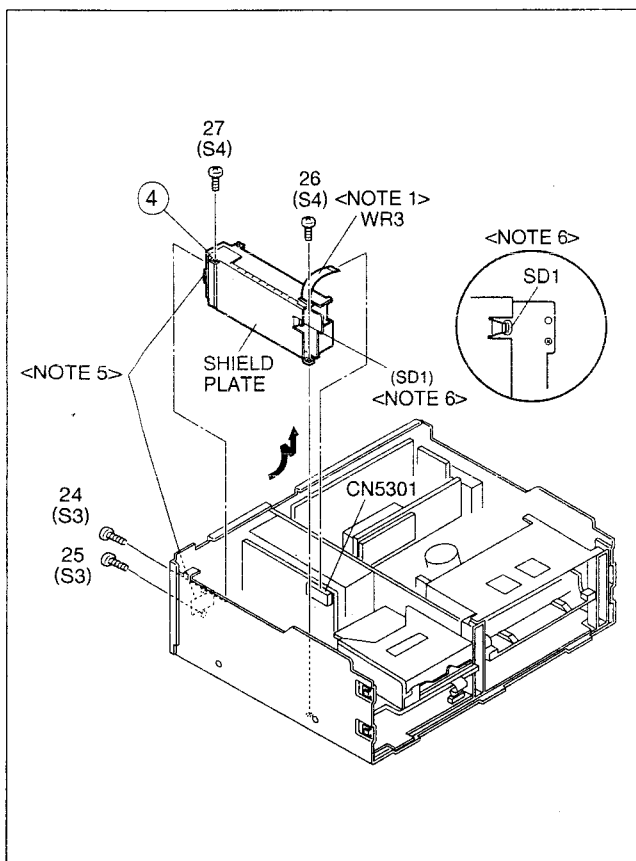


Fig. COM4

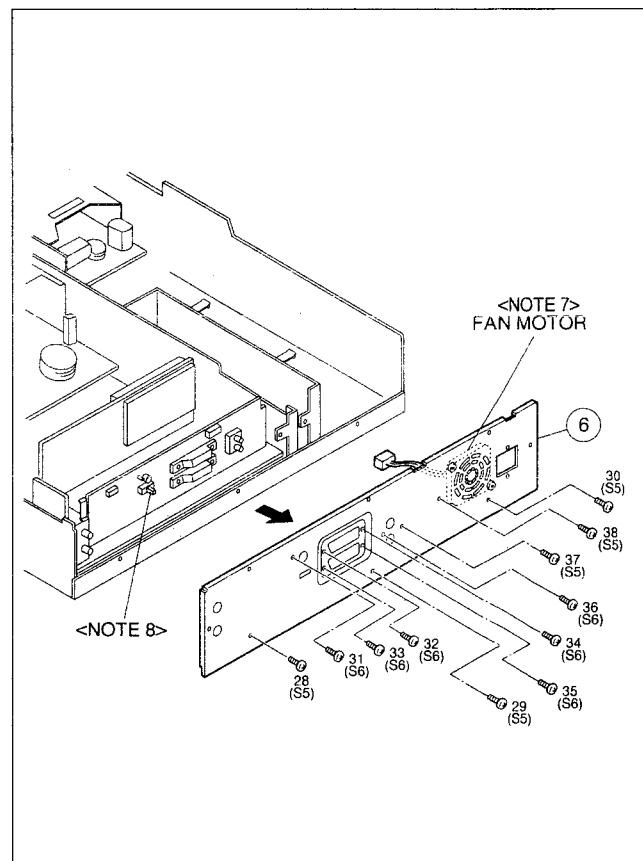


Fig. COM6

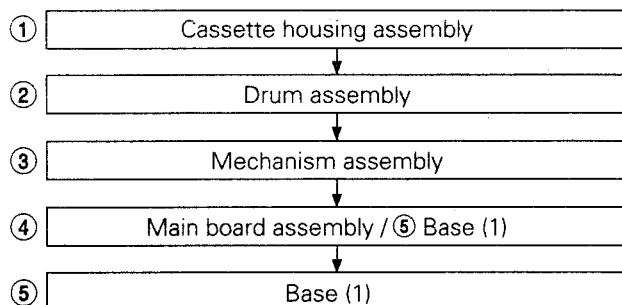
1.6 HOW TO REMOVE THE MAJOR PARTS <VHS section>

1.6.1 Disassembly flow chart

This flowchart shows the disassembly procedure for the exterior parts and electrical parts.

Basically, reverse this procedure when assembling them.

However, it is required to remove the common section parts as far as ① "Top cover" and ② "Front panel assembly" in advance. (See section 1.5)



1.6.2 Disassembly/assembly method <VHS section>

STEP / LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	Cassette housing assembly	V1	2(S7), (S8), (S9), (L1),(L2),(L3),2(L4), Earth plate	<NOTE 1>
②	Drum assembly	V2	3(S10), CN1(WR9), CN1(WR10), (L5), Head cleaner assembly	<NOTE 2, 3,4>
③	Mechanism assembly	V3	2(S11), (L6), (L7), FE Head(WR11), A/C Head(WR12), CN3002(WR13), CN3003,CN3004	<NOTE 5, 6,7,8>
④	MAIN board assembly / ⑤ Base(1)	V4	4(S4), 6(S6), (S7), CN3301(WR14), CN7102(WR15), CN5322(WR4), CN5321(WR5), CN2601(WR16)	<NOTE3,6>
⑤	Base (1)	V5	2(S7)	—

<NOTE 1>

When attaching the cassette housing assembly, take care not to damage S3001 (REC SAFETY SWITCH) and S3002 (CASS SWITCH).

<NOTE 2>

When attaching or removing the FPC, take care not to disconnect any of the wires.

<NOTE 3>

When attaching the FPC, be sure to connect it in the correct orientation.

<NOTE 4>

When attaching the head cleaner assembly, take care so that section ㉑ comes at the inner side of the guide rail ㉒ (on the drum side).

<NOTE 5>

When attaching wires, connect them in the correct orientation.

<NOTE 6>

Take care not to damage a part when attaching or detaching it.

<NOTE 7>

When attaching the spacer, take care about the orientation of the board assembly and spacer. Also be sure to attach it firmly.

<NOTE 8>

When attaching the main deck assembly, take care of the two connectors (CN3003, CN3004).

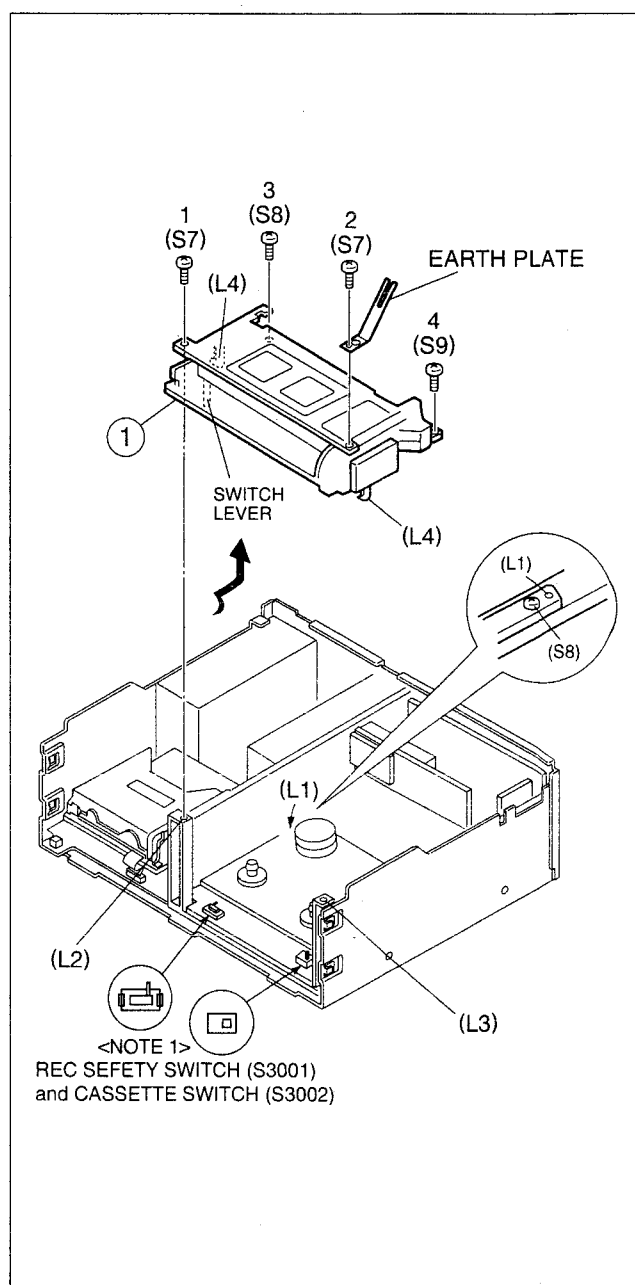


Fig. V1

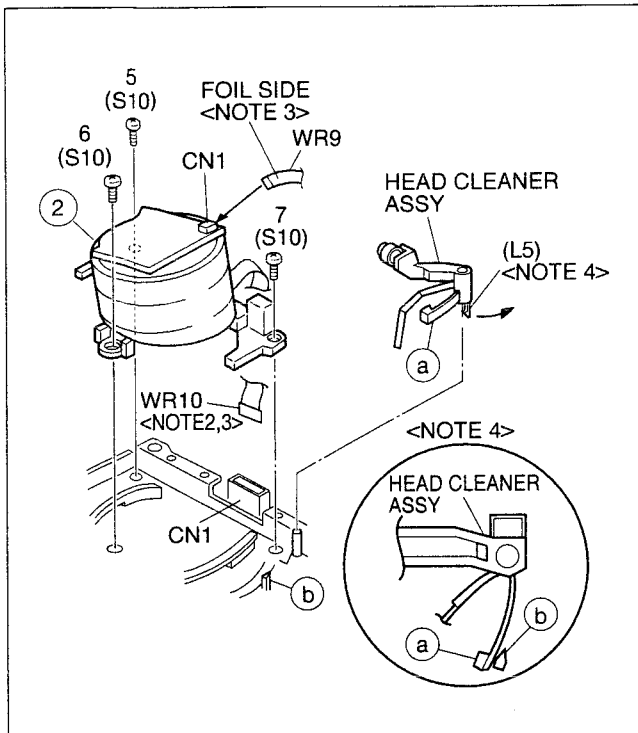


Fig. V2

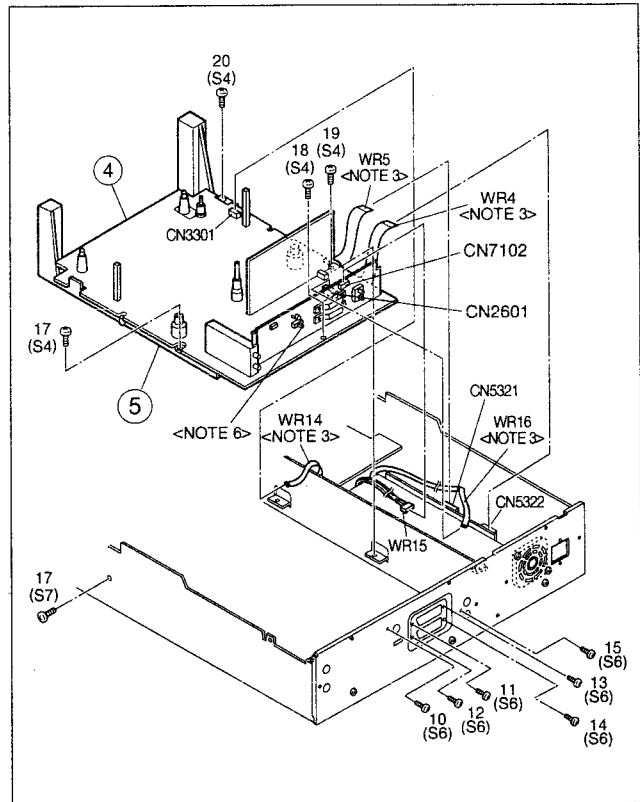


Fig. V4

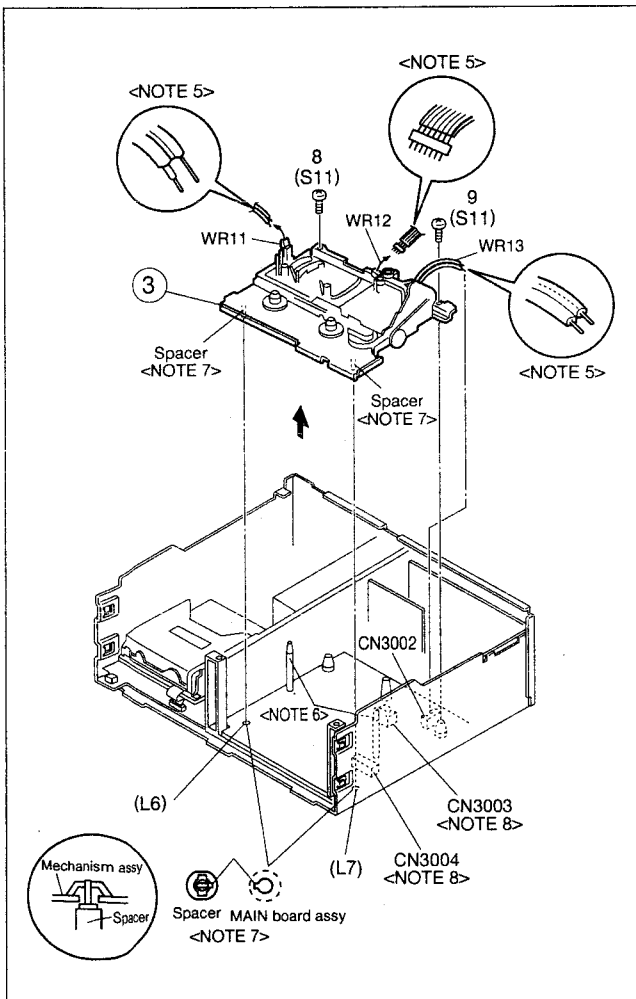


Fig. V3

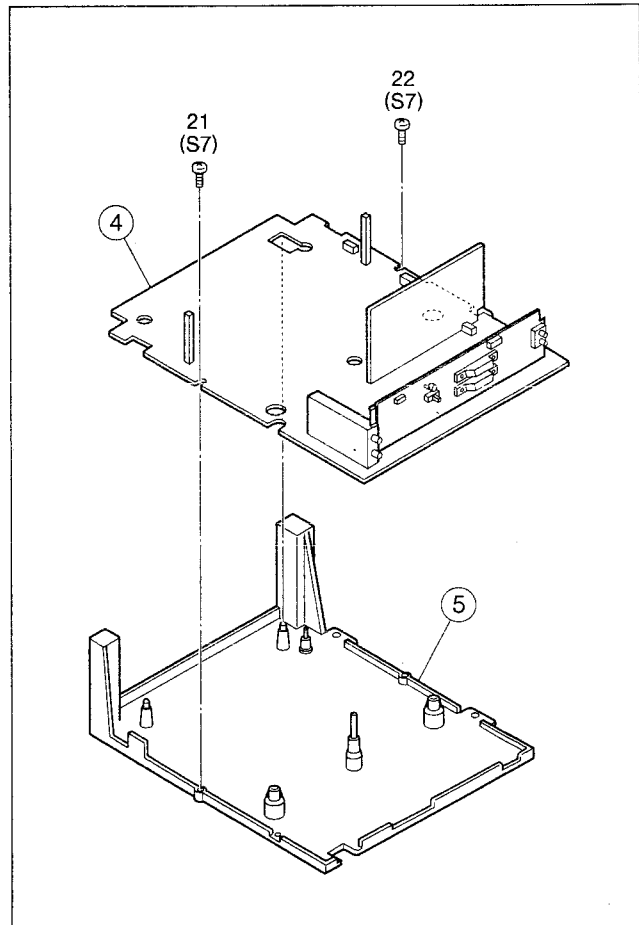


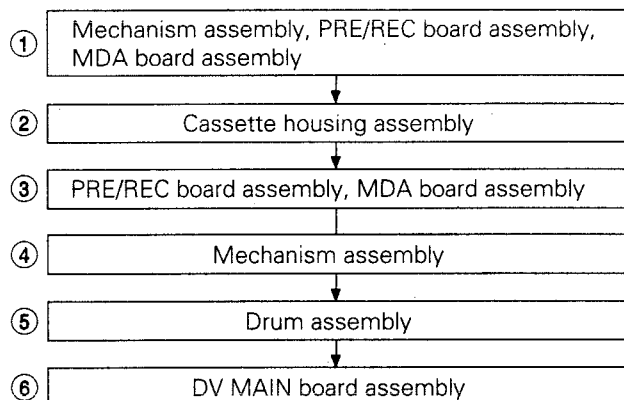
Fig. V5

1.7 HOW TO REMOVE THE MAJOR PARTS <DV section>

1.7.1 Disassembly flow chart

This flowchart shows the disassembly procedure for the exterior parts and electrical parts.

Basically, reverse this procedure when assembling them. However, it is required to remove the common section parts as far as ① "Top cover" and ② "Front panel assembly" in advance. (See section 1.5)



1.7.2 Disassembly/assembly method <DV section>

STEP /LOC NO.	PART NAME	FIG. NO.	POINT	NOTE
①	Mechanism assembly, PRE/REC board assembly, MDA board assembly	D1	4(S4), CN1401(WR17), CN9001(WR18), CN1606(WR19), CN1601(WR7)	<NOTE 1>
②	Cassette housing assembly	D2	2(S12), 2(L1), 2(L2), CN1607(WR20)	—
③	PRE/REC board assembly, MDA board assembly	D3	2(S4), (S13), (S14), CN1602(WR21), CN1605(WR22), CN1603(WR23), CN1604(WR24), CN9002(WR25), Shield plate	—
④	Mechanism assembly	D4	3(S2), 2(L3)	—
⑤	Drum assembly	D5	3(S15)	<NOTE 2>
⑥	DV MAIN board assembly	D6	4(S4), CN1001(WR14), CN2101(WR16), CN1002(WR8), CN3701(WR15)	<NOTE 3>

<NOTE 1>

With due regard to operational considerations, remove the parts located on the base (2) (i.e. MECHANISM ASSEMBLY, PRE/REC, MDA BOARD ASSEMBLY etc.) together before removing the major parts.

<NOTE 2>

Take care not to scratch or damage the DRUM ASSEMBLY by the CLEANER ASSEMBLY when performing work.

<NOTE 3>

Take care not to damage the BOARD ASSEMBLY when detaching parts.

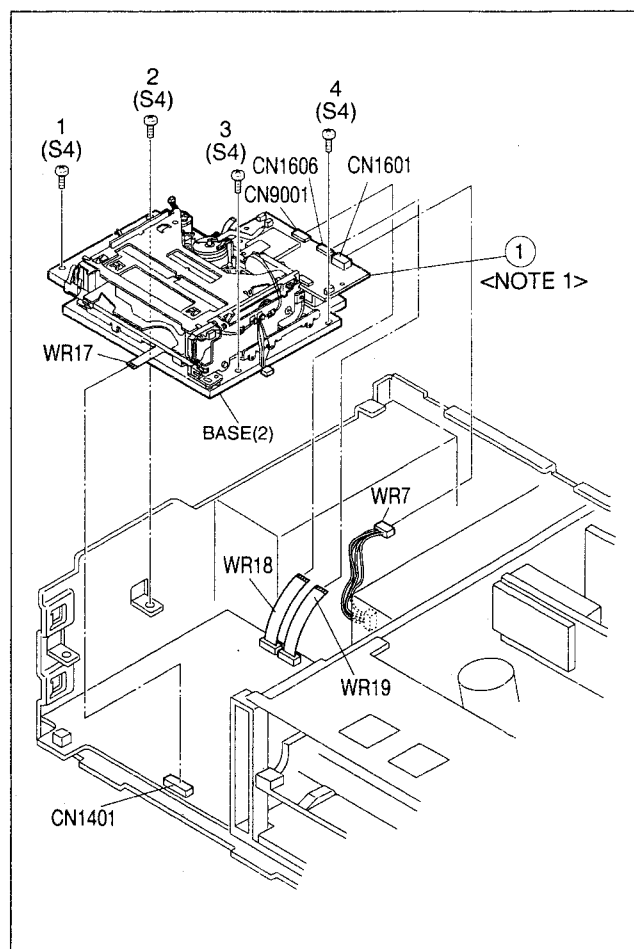


Fig. D1

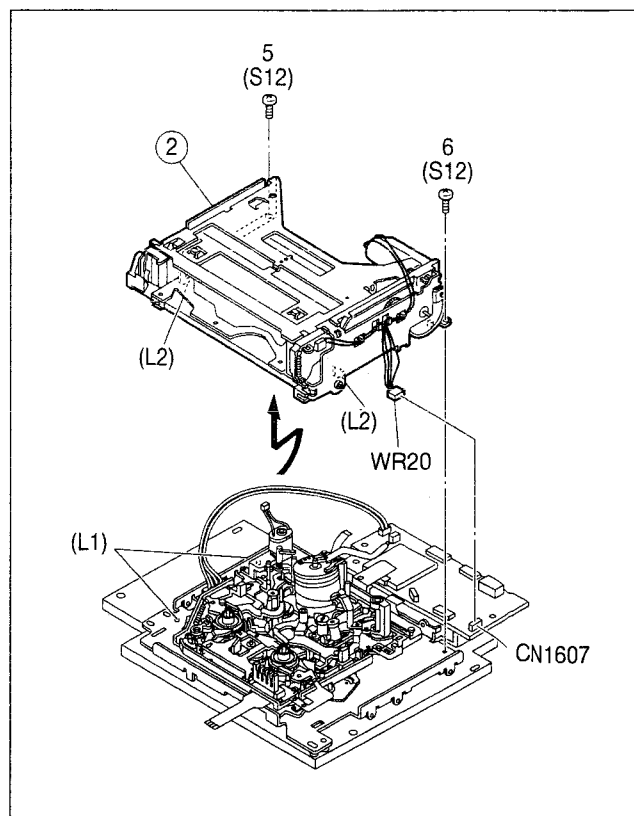


Fig. D2

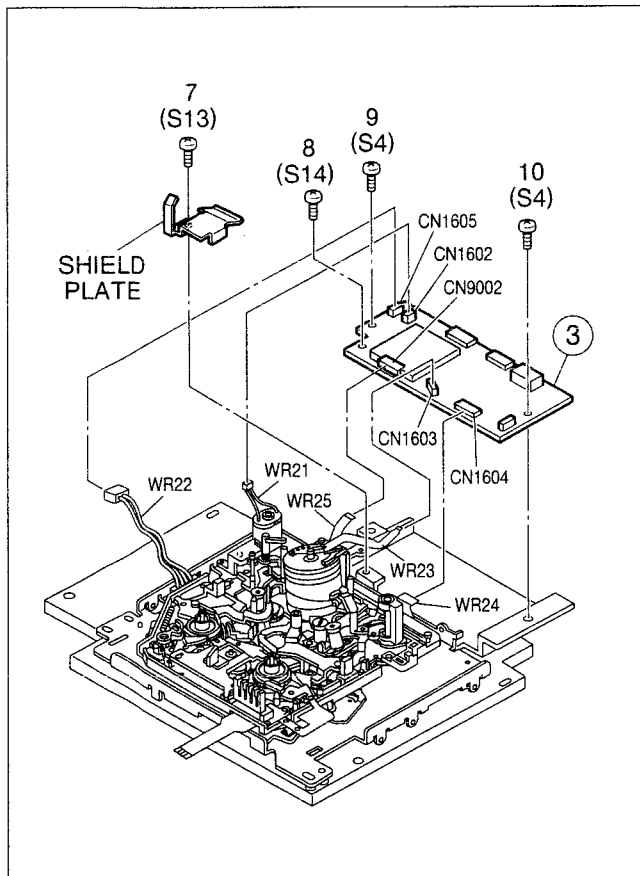


Fig. D3

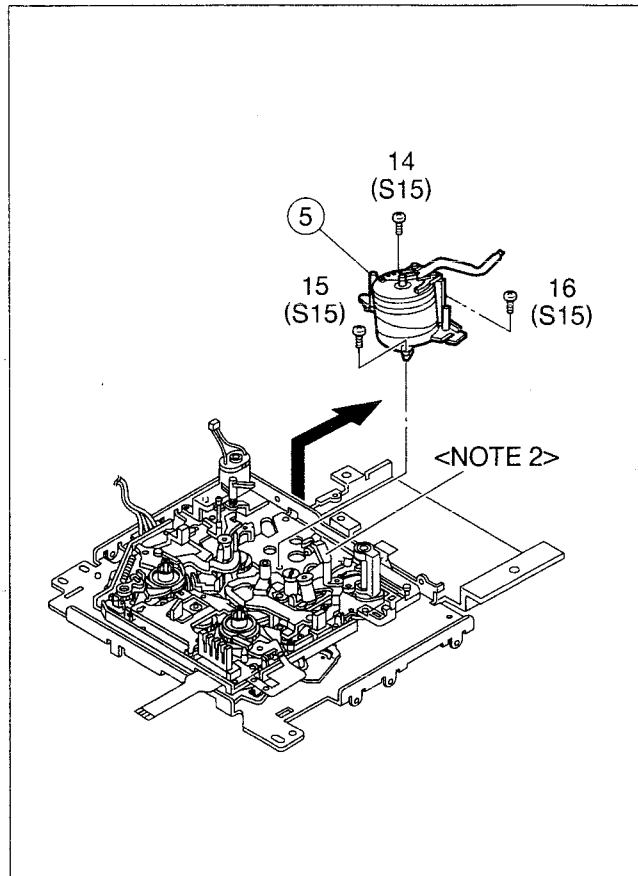


Fig. D5

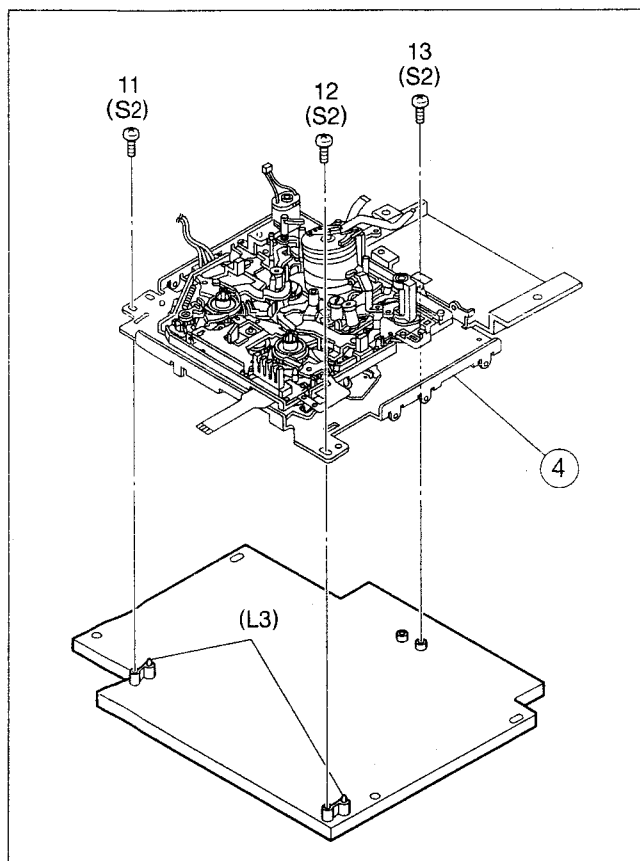


Fig. D4

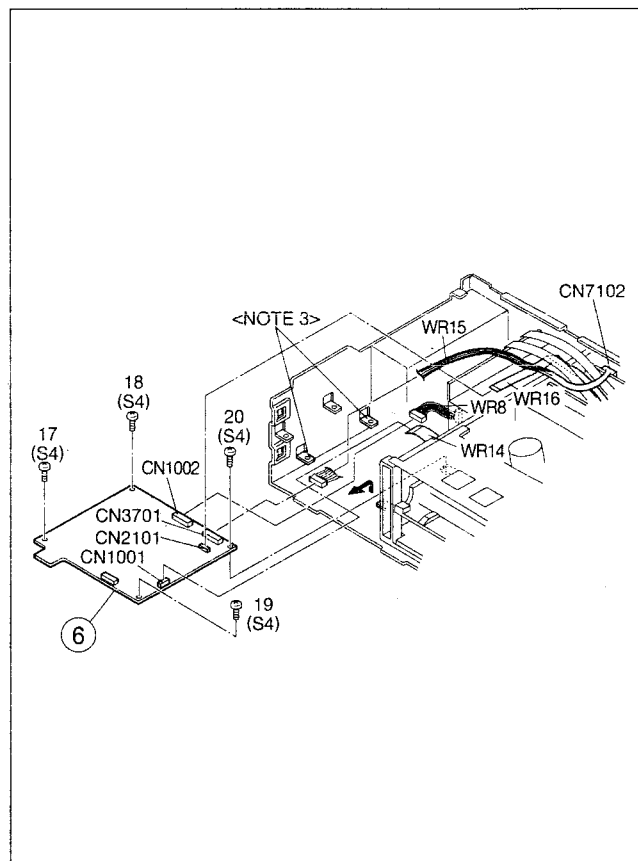


Fig. D6

1.8 SERVICE POSITIONS

The servicing locations for use in troubleshooting or servicing of the set are provided separately for the VHS and DV.

① SERVICE POSITIONS <VHS SIDE>

② SERVICE POSITIONS <DV SIDE>

1.8.1 Service position <VHS SIDE>

<Removal>

- (1) Remove the TOP COVER.
- (2) Remove the FRONT PANEL ASSEMBLY.
- (3) Remove the MAIN BOARD ASSEMBLY together with the mechanism assembly and base (1).

		Fig. No. (Page)	Screw	Hook, etc.	Connector	Note
(1)	TOP COVER	COM1 (1-3)	7 (No.1-7)	2 + 1 (L2,3)	0	—
(2)	FRONT PANEL ASSEMBLY	COM2 (1-3)	0	8 (L3)	2 (CN7507/ CN3011)	—
(3)	MAIN BOARD ASSEMBLY (etc.)	V4 (1-6)	11 (No.10-20)	0	5 (CN3301/ CN7102/ CN5322/ CN5321/ CN2601)	NOTE1

Table 1-8-1

NOTE1 : Take care not to damage the switch (AV OUT).

< Installation >

- (1) Stand up the BOTTOM CHASSIS ASSEMBLY so that the DV/REGULATOR side is in the lower position.
- (2) Connect the PATCH CORD to the FPC then connect CN3301.
- (3) By connecting a total of four FPCs and wires (CN7102/CN2601/CN5322/CN5321), carry out the installation so that the main board assembly comes in the upper position.

Point: • Take care that the FPCs and wires are not subjected to stress in this positioning.
• Remove the base (1) as required.

- (4) Connect the PATCH CORDS to the two FPCs of the FRONT PANEL ASSEMBLY, then connect the CORDS to the CN7507/CN3011.

For the PATCH CORD is required, see Table 1-8-3.

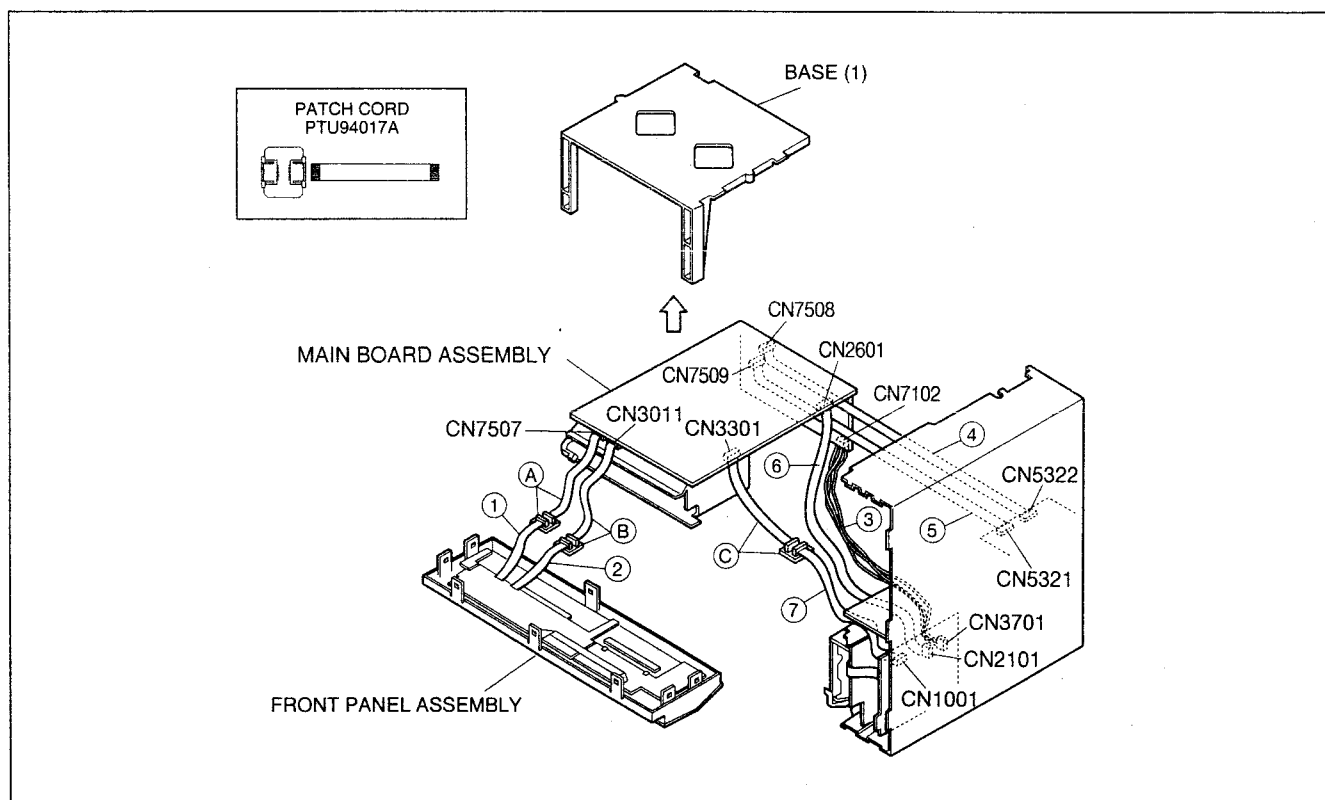


Fig. 1-8-1 Service position <VHS side>

1.8.2 Service position <DV SIDE>

<Removal>

- (1) Remove the TOP COVER.
- (2) Remove the FRONT PANEL ASSEMBLY.
- (3) Remove the mechanism assembly (DV side) together with the base (2).
- (4) Remove the DV MAIN BOARD ASSEMBLY.

NOTE 2: Place an insulation sheet on the mechanism assembly (VHS side), then remove the DV MAIN BOARD ASSEMBLY and place it on the insulation sheet.

When removing the DV MAIN BOARD ASSEMBLY, only remove a connector CN1001 out of four. Take care not to damage the parts during operating.

		Fig. No. (Page)	Screw	Hook, etc.	Connector	Note
(1)	TOP COVER	COM1 (1-3)	7 (No.1-7)	2 + 1 (L2,3)	0	—
(2)	FRONT PANEL ASSEMBLY	COM2 (1-3)	0	8 (L3)	2 (CN7507/ CN3011)	—
(3)	Mechanism (DV SIDE)/ BASE (2)	D1 (1-7)	4 (No.1-4)	0	4 (CN1401/ CN9001/ CN1606/ CN1601)	—
(4)	DV MAIN BOARD ASSEMBLY	D6 (1-8)	4 (No.17-20)	0	1 (CN1001)	NOTE2

Table 1-8-2

< Installation >

For the PATCH CORDS, see Table 1-8-3.

The patch cords that are indicated in Table 1-8-3 are in one package.

- (1) Connect a PATCH CORD to the FPC, and connect the end to the connector CN1001.
- (2) Connect PATCH CORDS to the three connectors/FPCs (CN1606/CN9001/CN1401).
- (3) Place the mechanism assembly (DV side) on the original position and connect the four wires/FPCs/connectors (CN1601/CN1606/CN9001/CN1401).
- (4) Connect PATCH CORDS to the two FPCs of the FRONT PANEL ASSEMBLY, and connect the ends to the CN7507 and CN3001.

	Board to Board	Wire
Ⓐ	PTU94022-10	QUQ212-1040CG
Ⓑ	PTU94022-11	QUQ212-1140CG
Ⓒ	YTU94072-10	QUQ210-1040CG
Ⓓ	YTU94074-15	QUQ105-1540AA
Ⓔ/Ⓕ	YTU94074-20	QUQ105-2040AA

Table 1-8-3

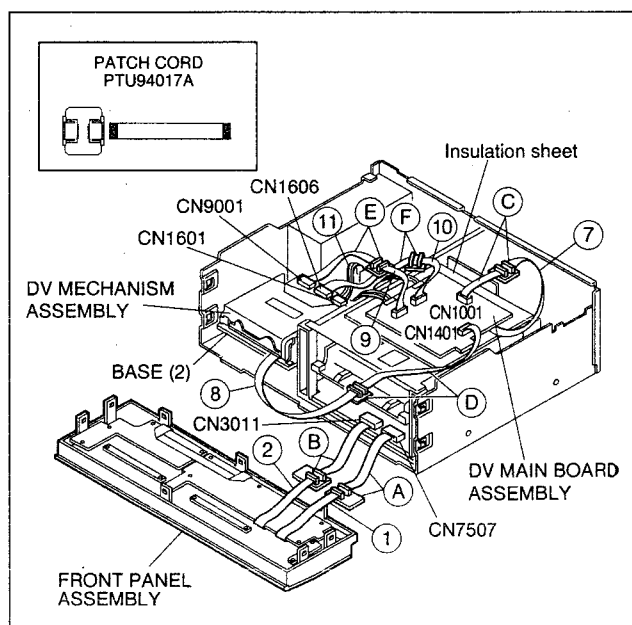


Fig. 1-8-2 Service position <DV side>

	SYMBOL	CONNECTOR (WIRE) CONNECTIONS		PIN No	PATCH CODE
① / Ⅱ	①	MAIN CN7507	— DISPLAY/SW CN1211	10	Ⓐ
① / Ⅱ	②	MAIN CN3011	— DISPLAY/SW CN1201	11	Ⓑ
Ⅰ	③	TERMINAL CN7102	— DV MAIN CN3701	9	—
Ⅰ	④	MAIN CN7508	— REGULATOR CN5322	13	—
Ⅰ	⑤	MAIN CN7509	— REGULATOR CN5321	12	—
Ⅰ	⑥	MAIN CN2601	— DV MAIN CN2101	8	—
① / Ⅱ	⑦	MAIN CN3301	— DV MAIN CN1001	10	Ⓒ
Ⅱ	⑧	DV MAIN CN1401	— SENSOR	15	Ⓓ
Ⅱ	⑨	DV PRE/REC CN9001	— DV MAIN CN3501	20	Ⓔ
Ⅱ	⑩	DV PRE/REC CN1606	— DV MAIN CN1402	20	Ⓕ
Ⅱ	⑪	REGULATOR CN5325	— DV PRE/REC CN1601	5	—

Table 1-8-4 Connection of Connectors

1.9 MECHANISM SERVICE POSITIONS

1.9.1 Summary

This set incorporates a Mechanism Service mode, which makes it possible to check the mechanism mode without loading a cassette tape.

- NOTES:**
- The Mechanism Service mode is applicable only to the mechanism assembly in the VHS section.
 - Before removing major parts always refer to "HOW TO REMOVE THE MAJOR PARTS".

1.9.2 Setting the mechanism service mode

- (1) Unplug the power plug from the power outlet.
 - (2) Remove the top cover and front panel assembly.
 - (3) Remove the cassette housing assembly.
 - (4) Short-circuit TP1201 (TEST) and TP1202 (GND) on the Display/SW board assembly.
 - (5) Plug the power plug into the power outlet.
 - (6) Switch the power on.
- After loading, the mechanism moves to position "S", which is the mechanism service position.

1.9.3 To exit from the mechanism service mode

- (1) Unplug the power plug from the power outlet.
 - (2) Remove short-circuiting of TP1201 (TEST) and TP1202 (GND) on the Display/SW board assembly.
 - (3) Plug the power plug into the power outlet.
- The power of the set turns on, the unloading operation occurs, the mechanism moves to position " " (C-INS)" and the power turns off.
- Now the Mechanism Service mode is exited.

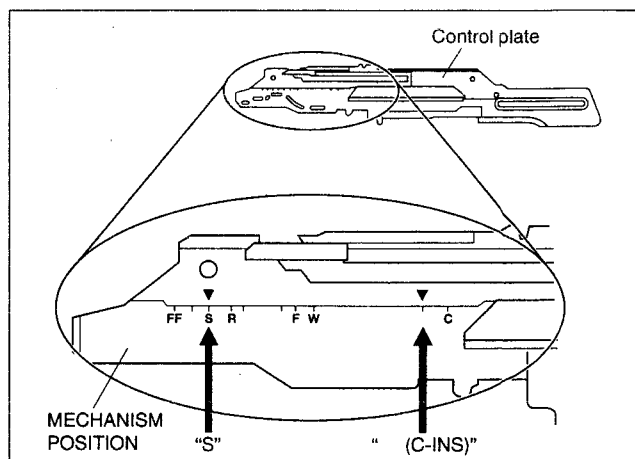


Fig. 1-9-1

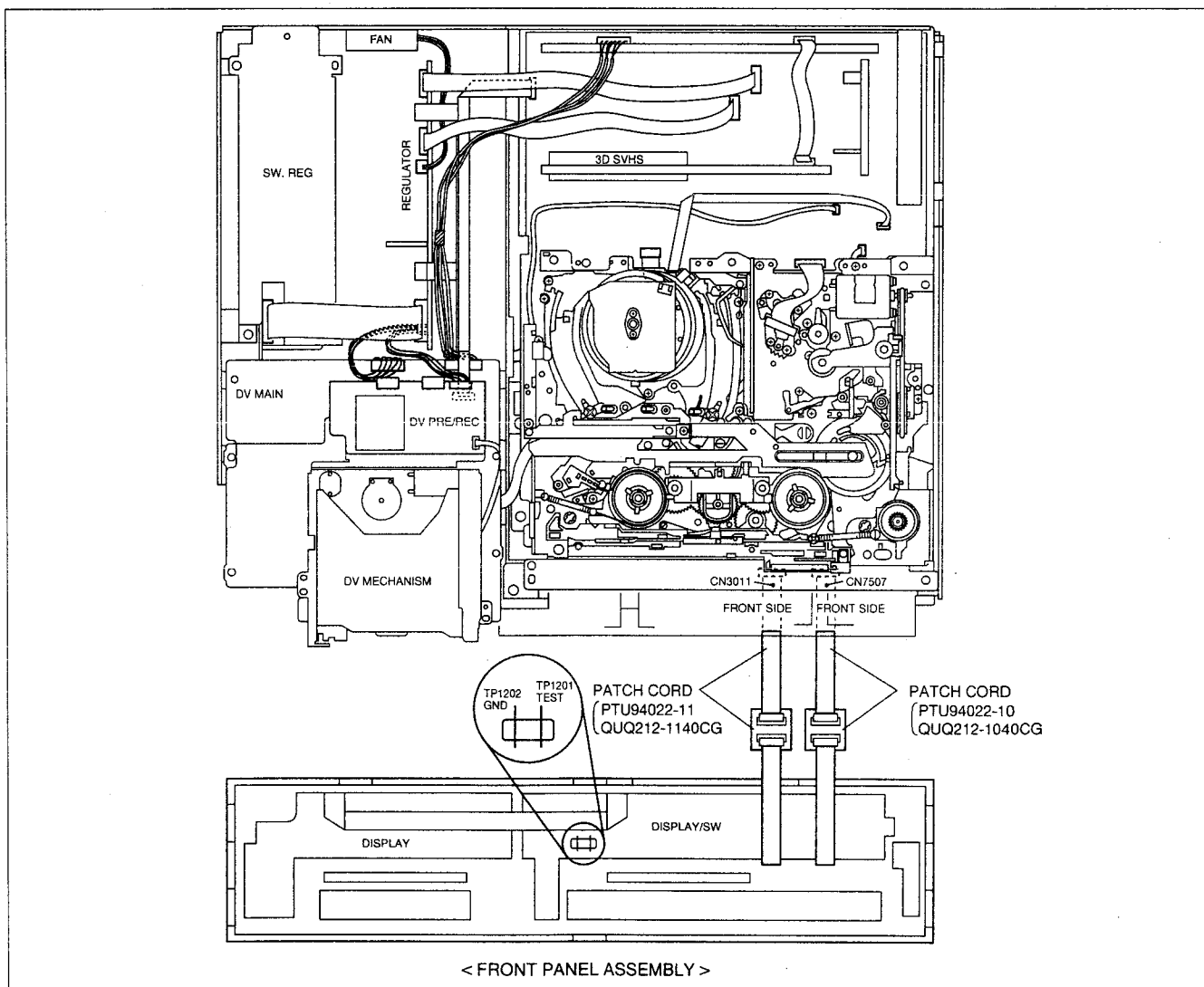
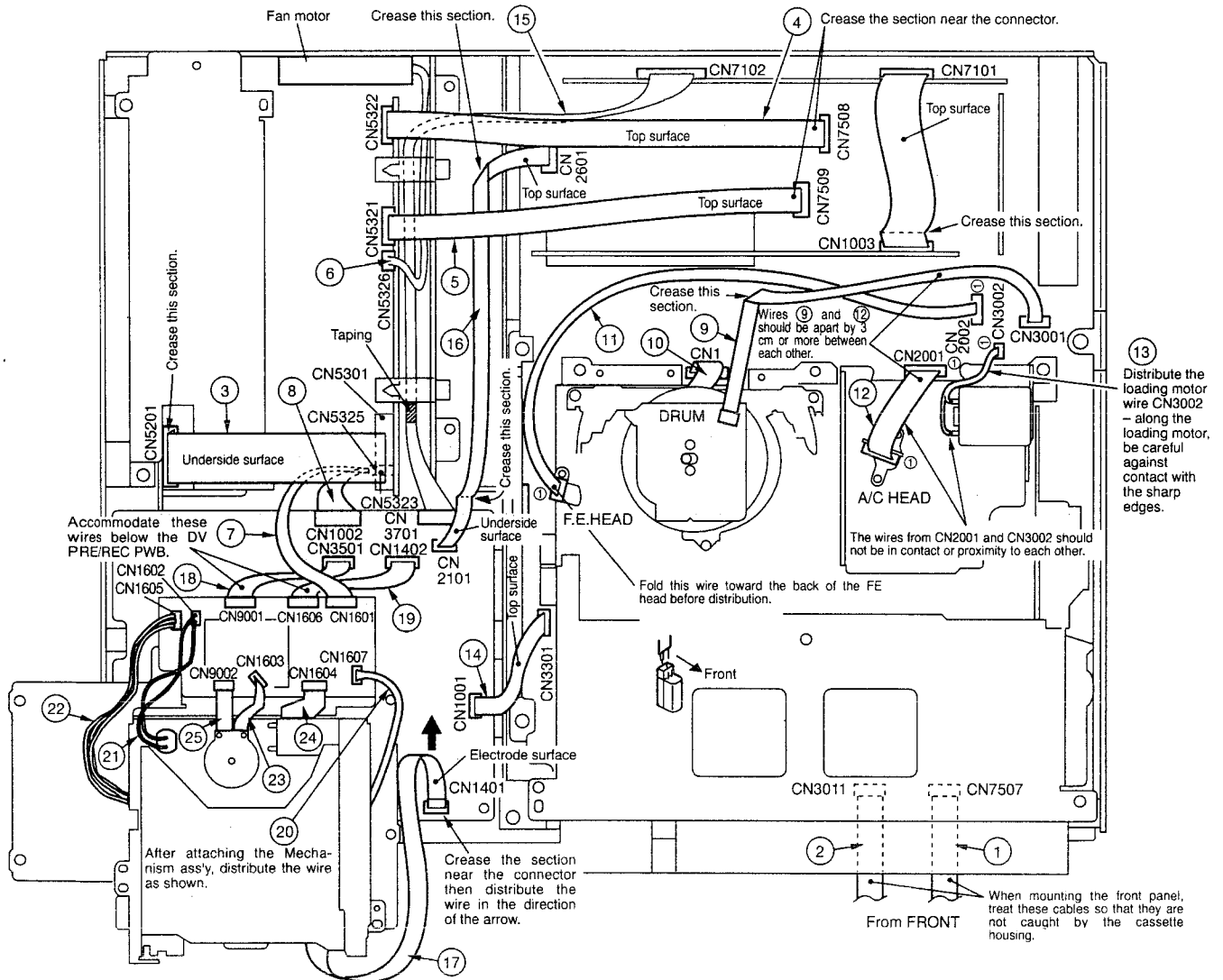


Fig. 1-9-2

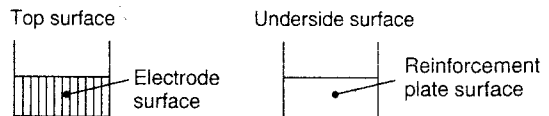
1.10 CONNECTION

TOP VIEW



[CAUTION]

1. Insert the FFC wires as shown below.



2. Insert each FFC wire so that the side with the color bands comes on the connector's side marked ① in the diagram.
3. When distributing wires, take care not to twist the parallel

Fig. 1-10-1 Top view

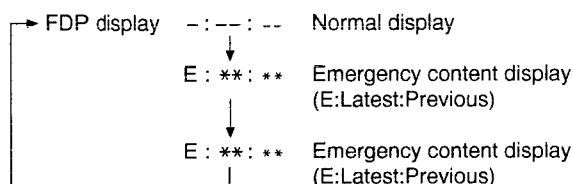
Fig. No.	Symbol	Connection					Pin No.	Type (FPC/ WIRE)
		Connected point		↔	Connected point			
①	WR1	MAIN	CN7507	↔	DISPLAY/SW	CN1211	10	FPC
②	WR2	MAIN	CN3011	↔	DISPLAY/SW	CN1201	11	FPC
③	WR3	REGULATOR	CN5301	↔	SW REG	CN5201	19	FPC
④	WR4	REGULATOR	CN5322	↔	MAIN	CN7508	13	FPC
⑤	WR5	REGULATOR	CN5321	↔	MAIN	CN7509	12	FPC
⑥	WR6	REGULATOR	CN5326	↔	FAN MOTOR	-	2	WIRE
⑦	WR7	REGULATOR	CN5325	↔	DV PRE/REC	CN1601	5	WIRE
⑧	WR8	REGULATOR	CN5323	↔	DV MAIN	CN1002	7	WIRE
⑨	WR9	DRUM MOTOR	-	↔	MAIN	CN3001	5	FPC
⑩	WR10	MAIN	CN1	↔	UPPER DRUM	-	13	FPC
⑪	WR11	FE HEAD	-	↔	MAIN	CN2002	2	WIRE
⑫	WR12	A/C HEAD	CN1	↔	MAIN	CN2001	7	WIRE
⑬	WR13	MAIN	CN3002	↔	LOADIND MOTOR	-	2	WIRE
⑭	WR14	MAIN	CN3301	↔	DV MAIN	CN1001	10	FPC
⑮	WR15	TERMINAL	CN7102	↔	DV MAIN	CN3701	9	WIRE
⑯	WR16	MAIN	CN2601	↔	DV MAIN	CN2101	8	FPC
⑰	WR17	DV MAIN	CN1401	↔	SENSOR	-	15	FPC
⑱	WR18	DV PRE/REC	CN9001	↔	DV MAIN	CN3501	20	FPC
⑲	WR19	DV PRE/REC	CN1606	↔	DV MAIN	CN1402	20	FPC
⑳	WR20	DV PRE/REC	CN1607	↔	DV HOUSING MOTOR	-	4	WIRE
㉑	WR21	DV PRE/REC	CN1602	↔	DV LOADING MOTOR	-	2	WIRE
㉒	WR22	DV PRE/REC	CN1605	↔	DV ENCODER	-	4	WIRE
㉓	WR23	DV PRE/REC	CN1603	↔	DV DRUM MOTOR	-	11	FPC
㉔	WR24	DV PRE/REC	CN1604	↔	DV CAPSTAN MOTOR	-	18	FPC
㉕	WR25	DV PRE/REC	CN9002	↔	DV VIDEO HEAD	-	10	FPC
-	-	DV MAIN	CN1004	↔	Jig CONN. CABLE	-	26	-

Table 1-10-1 Connection

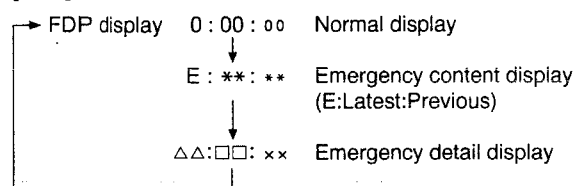
1.11 EMERGENCY DISPLAY FUNCTION

This unit has a function for storing the history of the past two emergencies (EMG) and displaying them on each FDP (VHS, DV). With the VHS section, the status of the set and mechanism at the moment an emergency occurred can also be confirmed.

FDP display switching [DV]



FDP display switching [VHS]



- NOTE:**
- The emergency detail display shows the information on the latest emergency. It becomes " -- : -- : -- " when there is no latest emergency record.
 - When using the Jig RCU, set its custom code according to the set code.

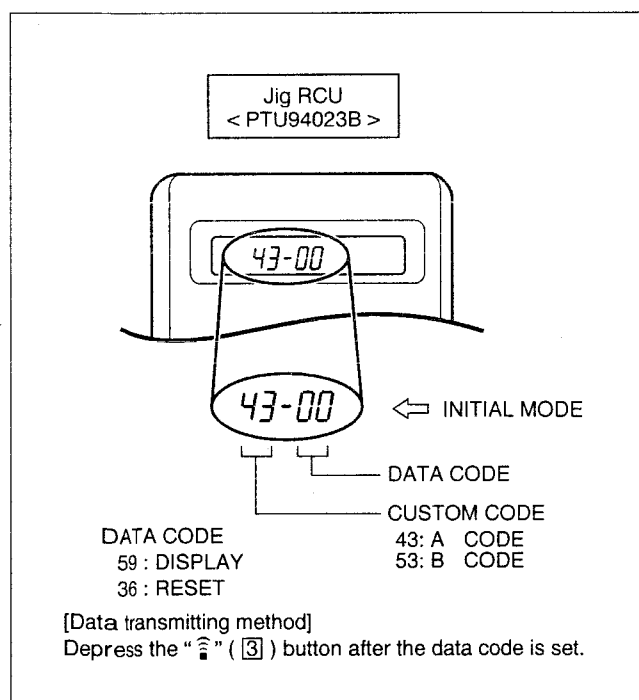
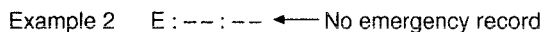
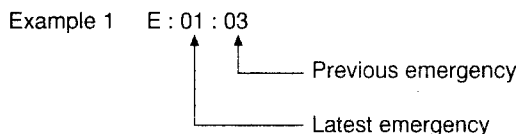


Fig. 1-11-1 Jig RCU

1.11.1 Displaying the emergency information

- (1) Transmit code "59" from the Jig RCU.

The FDP shows the emergency content in the form of "E: **: **: ".



NOTE: • [VHS]

For the emergency content, see "1.11.3 Emergency content description".

[DV]

For the emergency content, see "1.11.5 Emergency content description".

- (2) Transmit code "59" from the Jig RCU again. (VHS)

The FDP shows the emergency detail information in the form of "△△:□□:××".

△△ : Deck operation mode at the moment of emergency

□□ : Mechanism mode at the moment of emergency

× - : Mechanism sensor information at the moment of emergency

- × : Mechanism mode position at the moment of emergency

NOTE: • For the emergency detail information, see "1.11.4 Emergency detail description".

- (3) Transmit code "59" from the Jig RCU once again to reset the display.

1.11.2 Clearing the emergency history

NOTE: • This procedure is valid only with VHS. With DV, the data should be cleared through PC communications.

- (1) Display the emergency history.
- (2) Transmit code "36" from the Jig RCU.
- (3) Reset the emergency display.

1.11.3 Emergency content description [VHS]

FDP	CONTENT	CAUSE
E01: Loading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the loading direction, [E:01] is identified and the power is turned off.	① The mechanism is locked in the middle of mode transition. ② The mechanism is locked at the loading end due to the encoder position reading error during mode transition. ③ Power is not supplied to the loading MDA.
E02: Unloading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the unloading direction, [E:02] is identified and the power is turned off.	① The mechanism is locked in the middle of mode transition. ② The mechanism is locked at the loading end due to the encoder position reading error during mode transition. ③ Power is not supplied to the loading MDA.
E03: Take Up Reel Pulse EMG	When the take-up reel pulse has not been generated for more than 4 seconds in the capstan rotating mode, [E:03] is identified, the pinch rollers are turned off and stopped, and the power is turned off. However, the reel EMG is not detected in Slow/Still modes.	① The take-up reel pulse is not generated in the FWD transport modes (PLAY/FWD SEARCH/FF, etc.) because; 1) The idler gear is not meshed with the take-up reel gear; 2) The idler gear is meshed with the take-up reel gear, but incapable of winding due to too large mechanical load (abnormal tension); 3) The take-up reel sensor does not output the FG pulse. ② The supply reel pulse is not generated in the REV transport modes (REV SEARCH/REW, etc.) because; 1) The idler gear is not meshed with the supply reel gear. 2) The idler gear is meshed with the supply reel gear, but incapable of winding due to too large a mechanical load (abnormal tension); 3) The supply reel sensor does not output the FG pulse. ③ Power is not supplied to the reel sensors.
E04: Drum FG EMG	When the drum FG pulse has not been input for more than 3 seconds in the drum rotating mode, [E:04] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	① The drum could not start or the drum rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high; 2) The tape is damaged or a foreign object (grease, etc.) adheres to the tape. ② The drum FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (hall device) of the drum is faulty. ③ The drum control voltage (DRUM CTL V) is not supplied to the MDA. ④ Power is not supplied to the drum MDA.
E05: Cassette Eject EMG	When the eject operation does not complete in 3 seconds after the start, [E:05] is identified, the pinch rollers are turned off and stopped, and the power is turned off. When the cassette insertion operation does not complete in 3 seconds after the start, the cassette is ejected. In addition, when the operation does not complete within 3 seconds after the start, [E:05] is also identified and the power is turned off immediately.	① The cassette cannot be ejected due to a failure in the drive mechanism of the housing. ② When the housing load increases during ejection, the loading motor is stopped because of lack of headroom in its drive torque. (Housing load increasing factors: Temperature environment (low temperature, etc.), mechanism wear or failure. ③ The sensor/switch for detecting the end of ejection are not functioning normally. ④ The loading motor drive voltage is lower than specified or power is not supplied to the motor (MDA). ⑤ When the user attempted to eject a cassette, a foreign object (or perhaps the user's hand) was caught in the opening of the housing.
E06: Capstan FG EMG	When the capstan FG pulse has not been generated for more than 1 second in the capstan rotating mode, [E:06] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	① The capstan could not start or the capstan rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high (mechanical lock); 2) The tape is damaged or a foreign object (grease, etc.) is adhered to the tape (occurrence of tape entangling, etc.). ② The capstan FG pulse did not reach the System controller CPU because; 3) The signal circuit is disconnected in the middle; 4) The FG pulse generator (MR device) of the capstans is faulty. ③ The capstan control voltage (CAPSTAN CTL V) is not supplied to the MDA. ④ Power is not supplied to the capstan MDA.
E07: SW Power Short-Circuit EMG	When short-circuiting of the SW power supply with GND has lasted for 0.5 second or more, [E:07] is identified, all the motors are stopped and the power is turned off.	① The SW 5 V power supply circuit is shorted with GND. ② The SW 12 V power supply circuit is shorted with GND.
E08: Supply Reel Pulse EMG	When the supply reel pulse has not been generated for more than 10 seconds in the capstan rotating mode, [E:08] is identified and the cassette is ejected (but the power is not turned off). However, note that the reel EMG is not detected in the SLOW/STILL mode.	① The supply reel pulse is not generated in the FWD transport mode (PLAY/FWD SEARCH/FF, etc.) because; 1) PLAY/FWD or SEARCH/FF is started while the tape in the inserted cassette is cut in the middle; 2) A mechanical factor caused tape slack inside and outside the supply reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the FWD transport, so the pulse is not generated until then; 3) The FG pulse output from the supply reel sensor is absent. ② The take-up reel pulse is not generated in the REV transport mode (REV SEARCH/REW, etc.). 1) REV SEARCH/REW is started when the tape in the inserted cassette has been cut in the middle; 2) A mechanical factor caused tape slack inside and outside the take-up reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the REV transport, so the pulse will not be generated until that time. 3) The FG pulse output from the take-up reel sensor is absent. ③ The power to a reel sensor is not supplied.
E09: Head clog warning	Presupposing the presence of the control pulse output in the PLAY mode, when the value obtained by mixing the two V.FM output channels (without regard to the A.FM output) has remained below a certain threshold level for more than 10 seconds, [E:U1] is identified and recorded in the emergency history. During the period in which a head clog is detected, the FDP and OSD repeat the "3-second warning display" and "7-second noise picture display" alternately. EMG code : "E:U1" FDP : "U:01" OSD : "Try cleaning tape."	

The head clog warning is reset when the above-mentioned threshold has been exceeded for more than 2 seconds or the mode is changed to another mode than PLAY.

Table 1-11-1

1.11.4 Emergency detail description

[FDP display] $\Delta\Delta$: $\square\square$: $\times\times$ (Deck operation mode: Mechanism operation mode: Mechanism sensor information & mechanism mode position)

$\Delta\Delta$: Deck Operation Mode

$\Delta\Delta$	Deck Operation Mode
00	STOP with pinch roller pressure off (or tape present with P.OFF)
01	STOP with pinch roller pressure on
04	PLAY
0E	REC
11	Cassette ejected
22	FF
26	FWD SEARCH (variable speed) including x2-speed
2E	INSERT REC
43	REW
47	REV SEARCH (variable speed)
4C	AUDIO DUB
6E	INSERT REC (VIDEO + AUDIO)
84	FWD STILL/SLOW
85	REV STILL/SLOW
8F	REC PAUSE
AF	INSERT REC PAUSE
CD	AUDIO DUB PAUSE
EF	INSERT REC (VIDEO + AUDIO) PAUSE

Table 1-11-2

$\square\square$: Mechanism Operation Mode

$\square\square$	Mechanism Operation Mode
00	STOP with pinch roller pressure off
01	STOP with pinch roller pressure on
02	U/L STOP (or tape being loaded)
04	PLAY
05	PLAY (x1-speed playback using JOG)
0E	REC
11	Cassette ejected
22	FF
26	FWD SEARCH
2E	INSERT REC
43	REW
47	REV SEARCH
4C	AUDIO DUB
6E	INSERT REC (VIDEO + AUDIO)
84	FWD STILL/SLOW
85	REV STILL/SLOW
8F	REC PAUSE
AF	INSERT REC PAUSE
C7	REV SEARCH (x1-speed reverse playback using JOG)
CD	AUDIO DUB PAUSE
EF	INSERT REC (VIDEO + AUDIO) PAUSE
F0	Mechanism being initialized
F1	POWER OFF as a result of EMG

Table 1-11-3

× - : Mechanism Sensor Information

× -	Mechanism Sensor Information			
	CASS SW	REC SAFETY SW	START SENSOR	END SENSOR
0-	ON(Cassette present)	OFF(Tab broken)	on	on
1-	ON(Cassette present)	OFF(Tab broken)	on	off
2-	ON(Cassette present)	OFF(Tab broken)	off	on
3-	ON(Cassette present)	OFF(Tab broken)	off	off
4-	ON(Cassette present)	ON(Tab present)	on	on
5-	ON(Cassette present)	ON(Tab present)	on	off
6-	ON(Cassette present)	ON(Tab present)	off	on
7-	ON(Cassette present)	ON(Tab present)	off	off
8-	OFF(Cassette absent)	OFF(Tab broken)	on	on
9-	OFF(Cassette absent)	OFF(Tab broken)	on	off
A-	OFF(Cassette absent)	OFF(Tab broken)	off	on
B-	OFF(Cassette absent)	OFF(Tab broken)	off	off
C-	OFF(Cassette absent)	ON(Tab present)	on	on
D-	OFF(Cassette absent)	ON(Tab present)	on	off
E-	OFF(Cassette absent)	ON(Tab present)	off	on
F-	OFF(Cassette absent)	ON(Tab present)	off	off

Table 1-11-4

- × : Mechanism Mode Position

- ×	Mechanism Mode Position
-0	Tape being loaded/unloaded (When the pole base is located on the rear side of the position just beside the drum)
-1	Tape being loaded/unloaded (When the pole base is located on the front side of the position jist beside the drum)
-2	STOP with pinch roller pressure off
-3	REV, REV STILL/SLOW position
-4	EJECT position, U/L STOP position
-5	FWD, FWD STILL/SLOW position
-6	FF/REW position
-7	Intermediate position during transition between other mechanism modes

NOTE: As the display is always "-7" at any intermediate position between mechanism mode, the position of transitory emergency may sometimes not be locatable.

Table 1-11-5

< Mechanism mode >

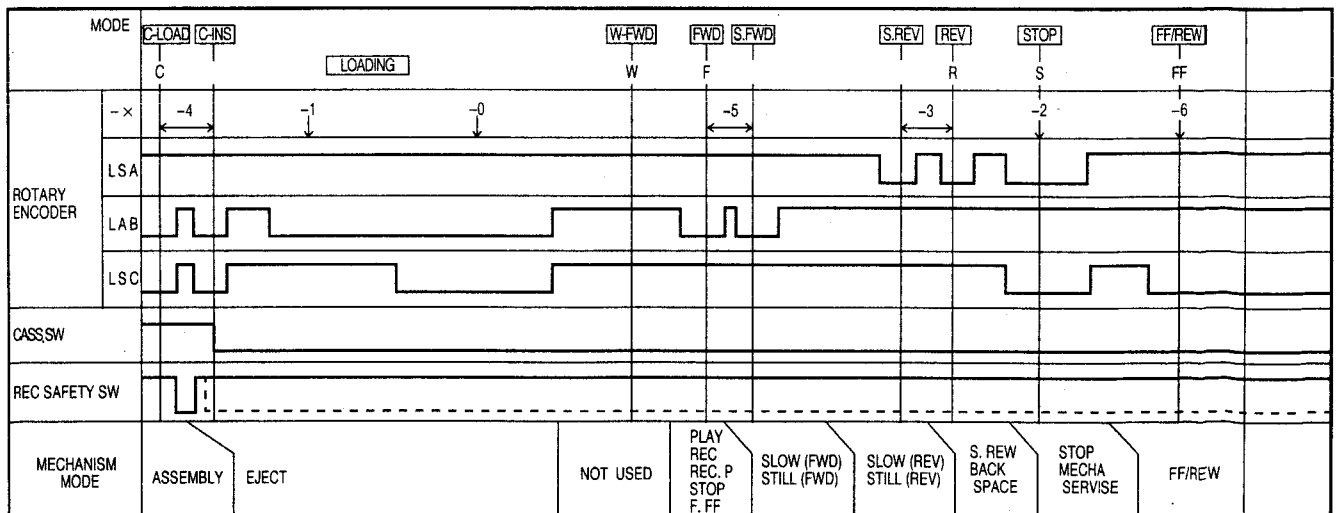


Table 1-11-6

1.11.5 Emergency content description [DV]

E. VF DISPALY	Emergency mode	Symptom	Surveillance mode	Mode to shift
E01	LOADING	The mechanism does not shift to the next mode (In the LOADING direction) though it has passed more than 4 seconds after the mechanism was required to do it.	LOADING	Mode continues
E02	UNLOADING	The mechanism does not shift to the next mode (In the UNLOADING direction) though it has passed more than 4 seconds after the mechanism was required to do it.	UNLOADING	Mode continues
E03	REEL FG	No. REEL FG (TU or SUP) signal is input for more than 4 seconds in the mode that the reel must rotate.	When reel is rotating	STOP
E04	DRUM FG	No DRUM FG signal is input for more than 3 seconds in the mode that the drum motor must rotate.	When drum is rotating	STOP
—	—	—	—	—
E06	CAPSTAN FG	No CAPSTAN FG signal is input for more than 1.5 seconds in the mode than the capstan motor must rotate (the pinch roller is pressed to the capstan).	When capstan is rotating (pinch roller is pressed to it).	STOP

Table 1-11-7

SECTION 2

MECHANISM ADJUSTMENT (VHS)

2.1 PREPARATION

2.1.1 Precautions

- (1) Disconnect VCR from AC power before soldering.
- (2) Avoid imparting stress to wires when disengaging connectors.
- (3) Determine and correct the cause of difficulty before proceeding to adjustments. Do not disturb settings unnecessarily.
- (4) Use care not to damage tabs, claws, etc during repairs.
- (5) Install the cassette housing assembly only when the mechanism is in the MECHANISM ASSEMBLING MODE position. (See 2.4.2.)
- (6) When reattaching the front panel assembly, make sure that the door opener of the cassette housing assembly is lowered in position prior to the reinstallation. (See SECTION 1 DISASSEMBLY.)

2.1.2 Check without cassette housing assembly

Mechanism operations can be observed easily by removing the cassette housing assembly. Use the MECHANISM SERVICE MODE. (See SECTION 1 DISASSEMBLY.)

2.1.3 Manual removal of loaded tape

When the deck enters the emergency mode with cassette tape loaded and it can not be ejected by pressing the EJECT button, take out of the cassette tape according to the following procedure.

- (1) Disconnect the power cord from AC outlet then take out the Top cover and Front panel assembly.
- (2) Turn the loading motor on the Mechanism assembly by hand in the unloading direction to where the pole base assembly (supply and take up) is positioned below the cassette tape. At that time, pay careful attention to the tape not to get soiled with grease.
- (3) Take out 4 screws of the cassette housing assembly. (See SECTION 1 DISASSEMBLY.)
- (4) Remove the cassette housing with slackened tape and guard panel of cassette.
- (5) Wind up the tape by turning the reel hub (either supply or take up side for convenience) from the bottom of the cassette, and remove the cassette tape.

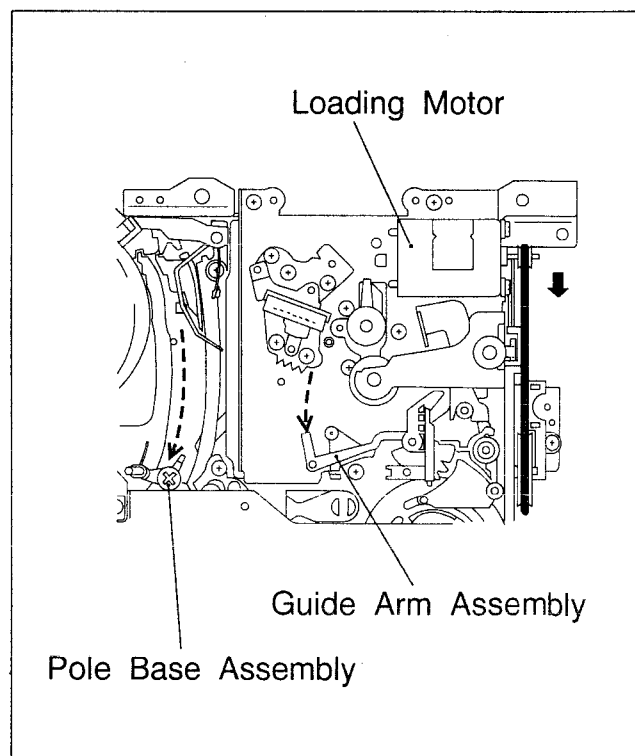


Fig. 2-1-1

2.1.4 Test Equipment

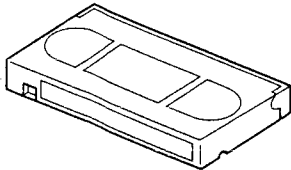
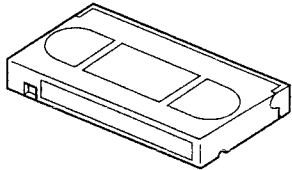
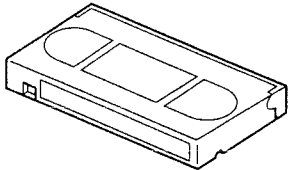
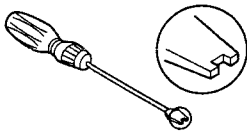
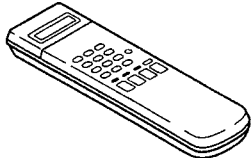
Alignment tape (SP) MHPE	Alignment tape (LP) MHPE-L	Back tension cassette gauge PUJ48076-2	A/C head positioning tool PTU94010
			
Roller driver PTU94002	Jig RCU PTU94023B		
			

Table 2-1-1 Test equipment

2.2 MAIN MECHANISM PARTS

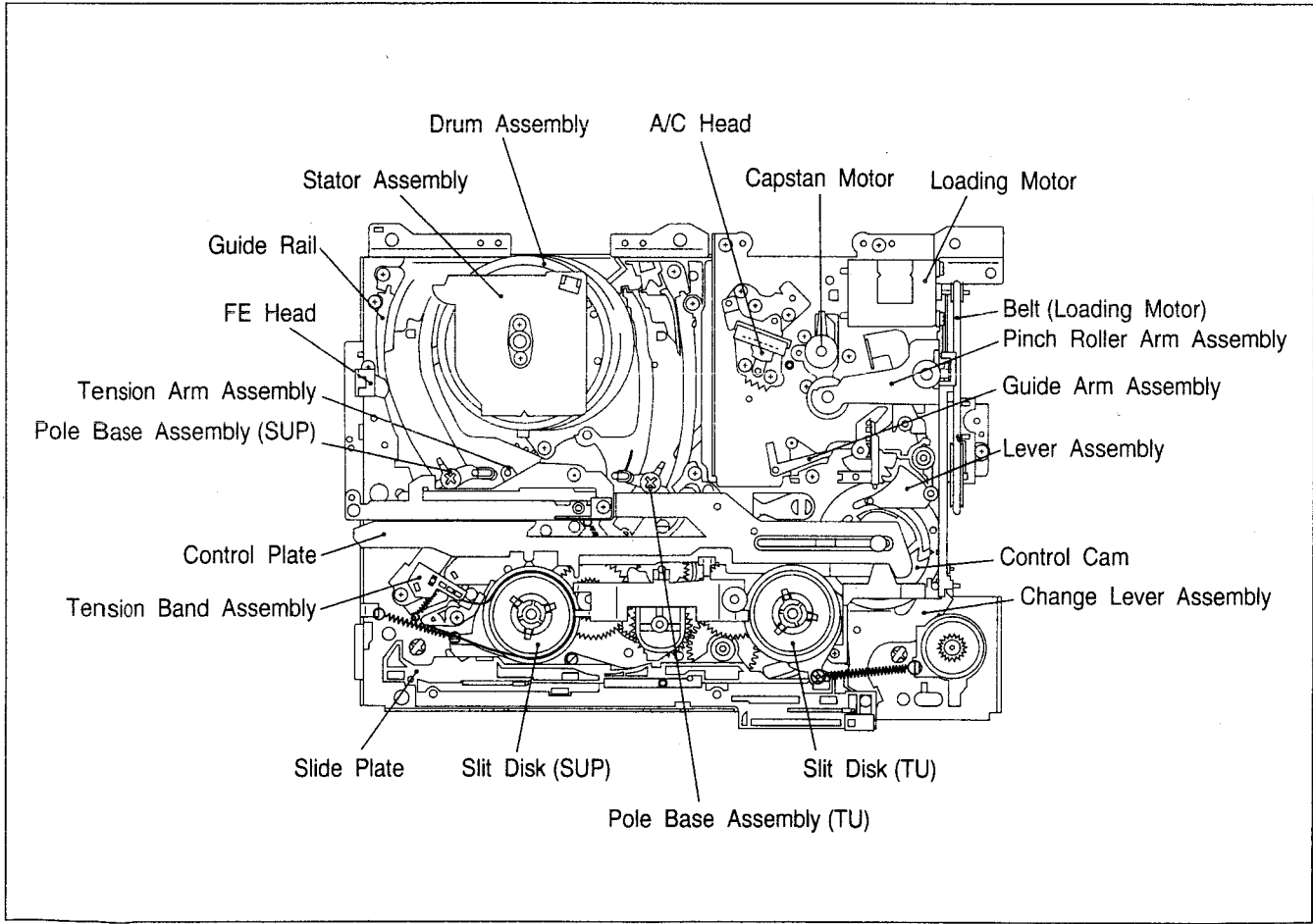


Fig. 2-2-1 Top view of mechanism assembly

2.2.1 Cleaning

Periodic cleaning of the tape transport system is desirable, but usually not feasible in practice. Therefore, perform cleaning when a set is brought in for repairs or maintenance. Contamination of the video heads, tape guides and brush can detract from playback picture quality and in extreme cases, even damage the tape. For cleaning, use a finemesh cotton cloth (about the texture of a white dress-shirt) moistened in alcohol. It is recommended to also clean the tape tension posts and capstan.

- To clean the video heads, press the moistened cloth gently against the upper drum with fingertip and turn the drum by hand.
- Do not use a vertical stroke, as this may damage the heads.

2.2.2 Lubrication

Oil and grease do not normally require periodic replenishing. Apply only when replacing lubricated parts (also clean and replace lubrication of mating parts if soiled). For parts and points to apply oil and grease, refer to the exploded views of the mechanism assembly. Before oiling, clean with alcohol. Apply one or two drops of oil. Avoid excess oil.

1. Table 2-2-1 indicates the oil and grease used in this set. Use these or recommended locally available equivalents.

Category	Part No.
Oil	COSMO-HV56
Grease	KYODO-SH-P

Table 2-2-1

2. Grease is not required for a replacement cassette housing assembly, as this has been applied at the factory.

NOTE : *Stir grease that has been stored for an extended period.*

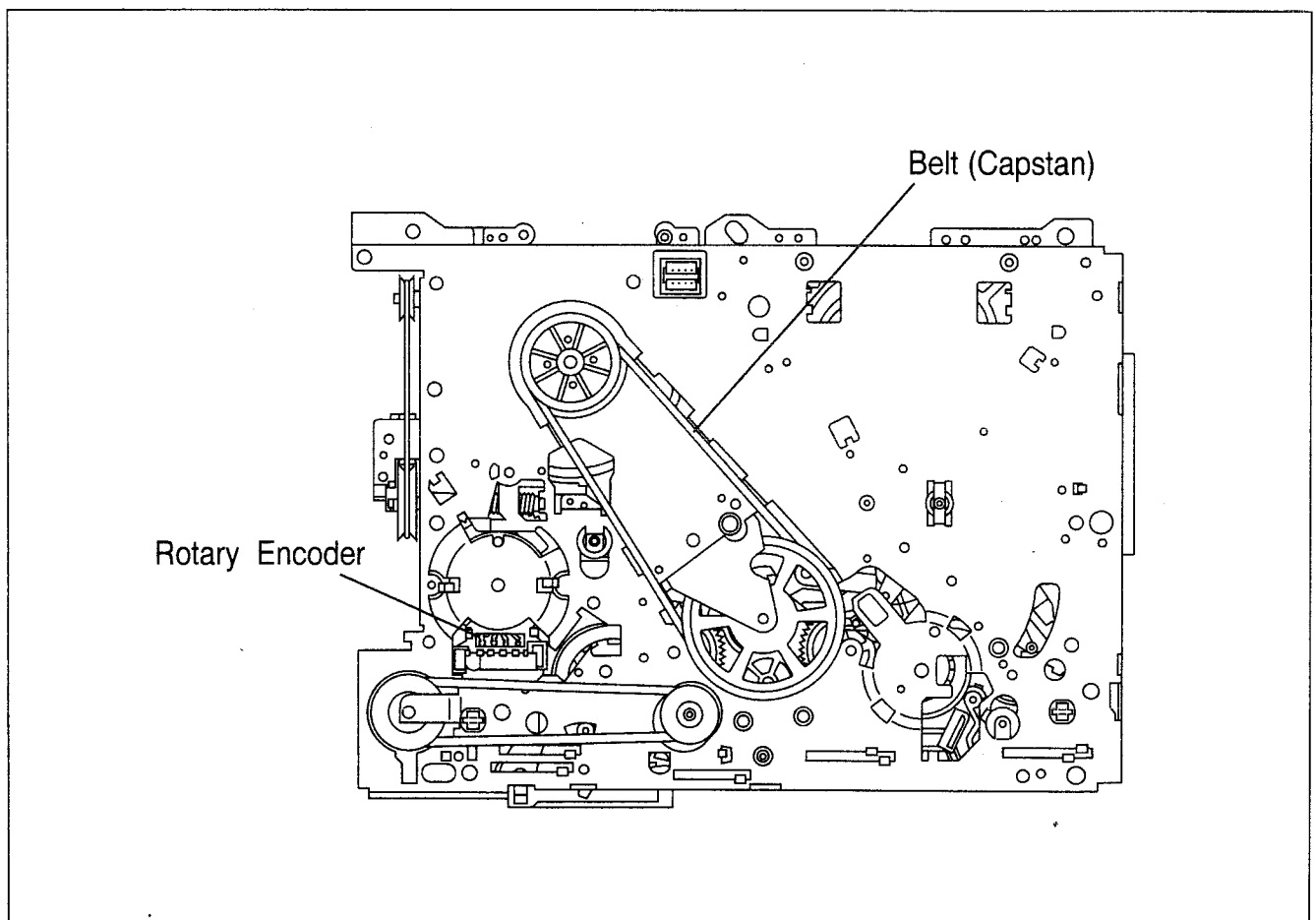


Fig. 2-2-2 Bottom view of mechanism assembly

2.3 INSPECTION AND MAINTENANCE

This product employs rotary and moving parts which wear out in the course of usage. Periodic inspection, cleaning, lubrication and maintenance are therefore important for ensuring maximum performance. Worn parts must also be replaced as and when required.

2.3.1 Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning, lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions. However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time, even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Upper drum assembly	★ ○	○
	A/C head	★ ○	★ ○
	Lower drum motor assembly	★	★ ○
	Pinch roller arm assembly	★	★
	Full erase head	★	★
	Tension arm assembly	★	★
	Guide arm assembly	★	★
Drive	Capstan motor		○
	Belt (Capstan)	○	○
	Belt (Loading motor)		○
	Loading motor		○
	Slit disk (supply, take up)		○
	Clutch unit (supply, take up)		○
	Worm gear assembly		○
	Control plate		○
	Slide plate		○
Other	Brush	★ ○	★ ○
	Tension band assembly	○	○
	Rotary encoder		○

★ : Cleaning

○ : Inspection or Replacement if necessary

Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY PROCEDURE OF MECHANISM

2.4.1 Precaution before disassembling mechanism

This mechanism has an exclusive operation mode provided for disassembling and installation of the mechanism (MECHANISM ASSEMBLING MODE), and it is suggested to set the mechanism to this mode before disassembly and installation. The exclusive mechanism operation mode is not generally used and becomes available by manual setting only. Then this procedure starts with the condition that the cabinet parts and cassette housing assembly have been removed.

2.4.2 How to set the exclusive mechanism operation mode (MECHANISM ASSEMBLING MODE)

- (1) Turn the loading motor belt by hand.
- (2) Confirm that the hole of the control cam are aligned to the deck hole as shown in Fig.2-4-1.

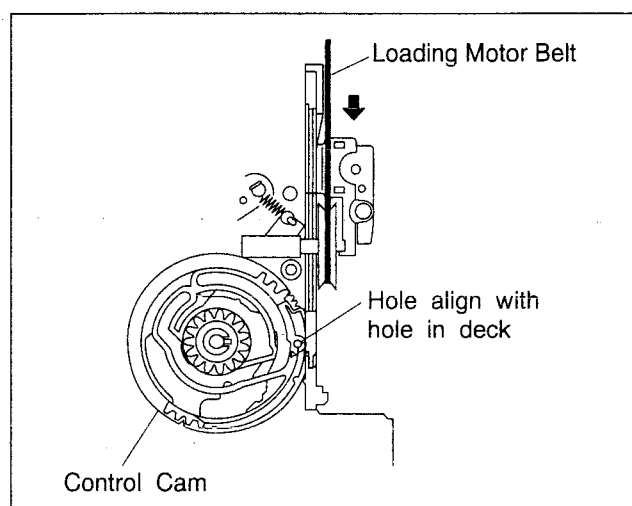


Fig. 2-4-1

2.5 MAIN PARTS REPLACEMENT OF MECHANISM

2.5.1 Pinch Roller Arm Assembly

- (1) Remove the slit washer.
- (2) Lift the pinch roller arm assembly, and pull out it while pushing the pinch plate toward outside.

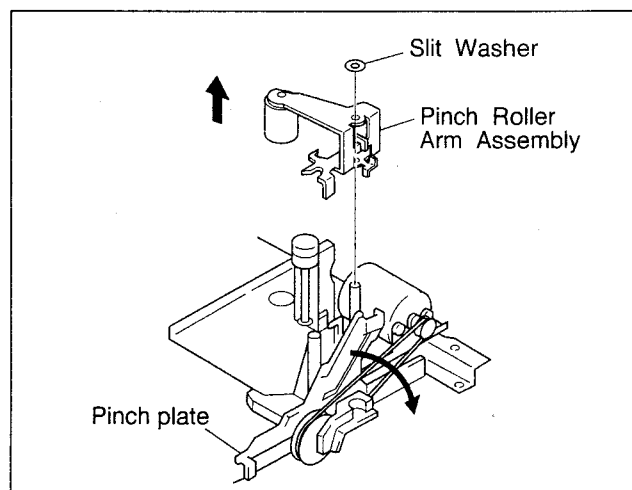


Fig.2-5-1

2.5.2 A/C Head

1. Removal

- (1) Take out the 2 screws (A).
- (2) Remove the A/C head with head base.

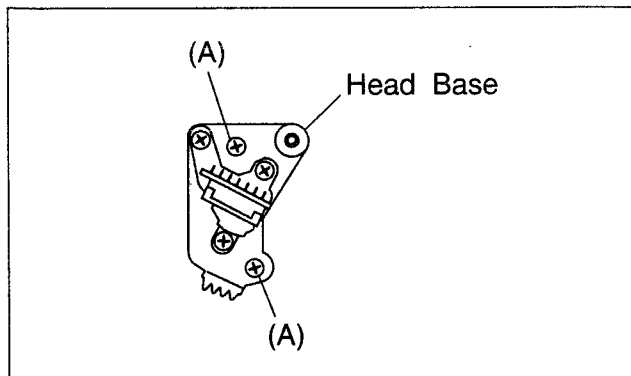


Fig.2-5-2

- (3) When replacing the A/C head only, remove the 3 screws (B), use care not to misplace the 3 springs.

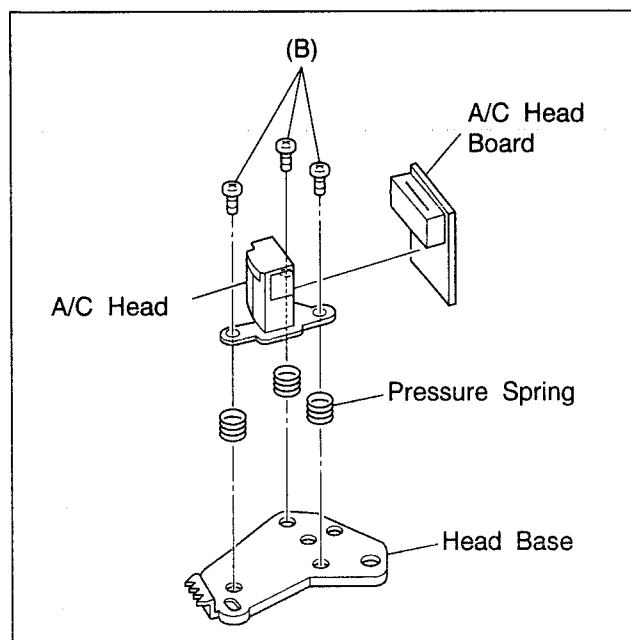


Fig.2-5-3

2. Installation

- (1) Temporarily set the A/C head height as indicated in Fig. 2-5-4.

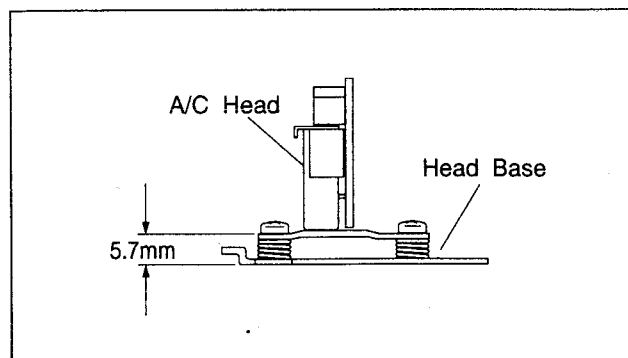


Fig.2-5-4

NOTES:

- It is very important to correctly adjust the control pulse and audio signal in addition to the mechanical tape path.
- Perform interchangeability adjustments after electrical adjustments.

2.5.3 Pinch Plate

1. Removal

- (1) Disengage the 2 claws, then remove the pinch plate.

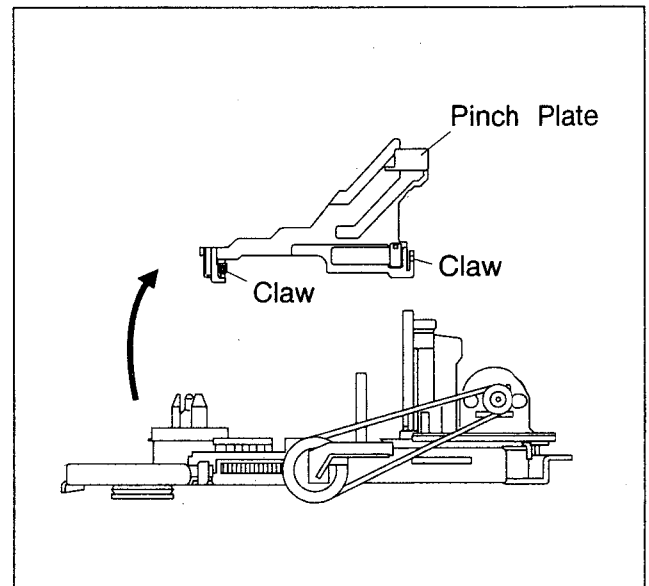


Fig.2-5-5

2. Installation

- (1) When installing the pinch plate, align rack of the pinch plate and triangle mark of the control cam as indicated in Fig. 2-5-6.

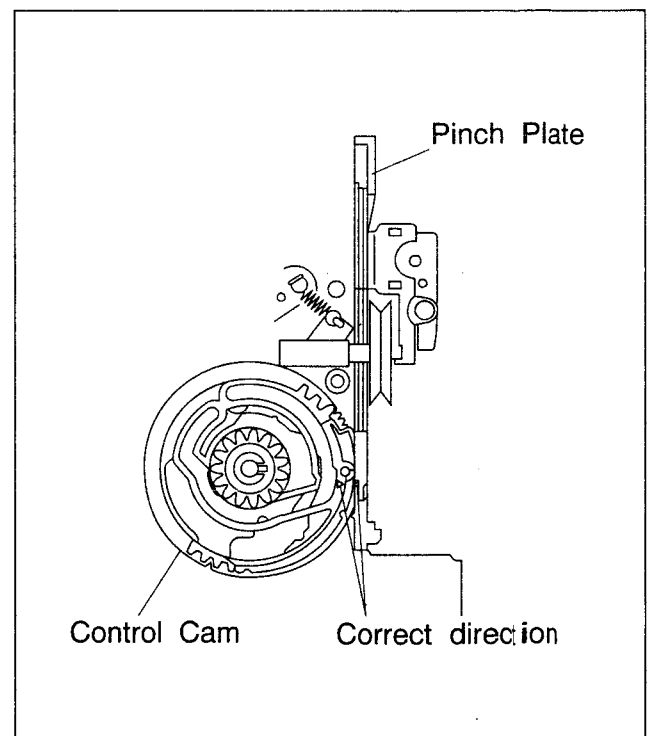


Fig. 2-5-6

2.5.4 Loading Motor

- (1) Remove the belt from the worm gear assembly.
- (2) Take out the 2 screws (A) and then remove the loading motor.

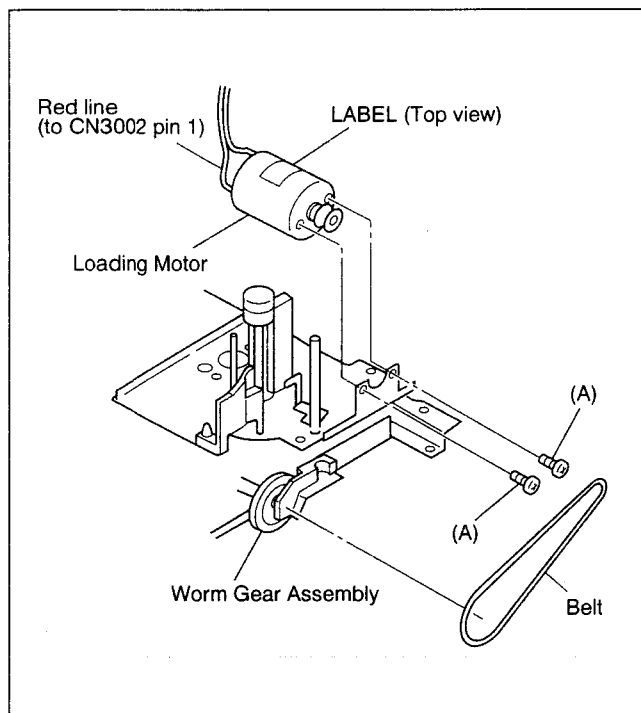


Fig.2-5-7

NOTE: When installing the loading motor, hold it so that the label faces upward. Also take care with the wire colors.

2.5.5 Lever Assembly, Sub Deck Assembly, Capstan Motor

- (1) First remove the belt from the rear side (capstans) of the mechanism assembly.

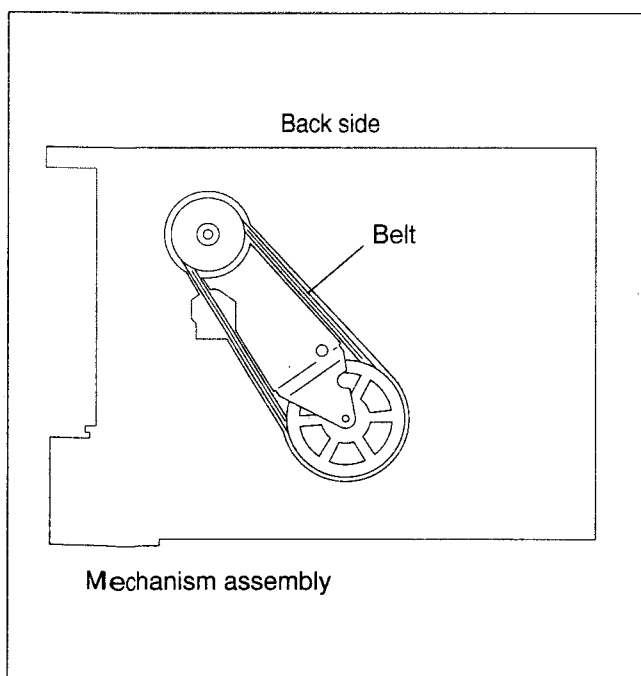


Fig.2-5-8

- (2) Take out the slit washer, then remove the lever assembly.
- (3) Take out the 3 screws (A), then remove the capstan motor and sub deck assembly together.

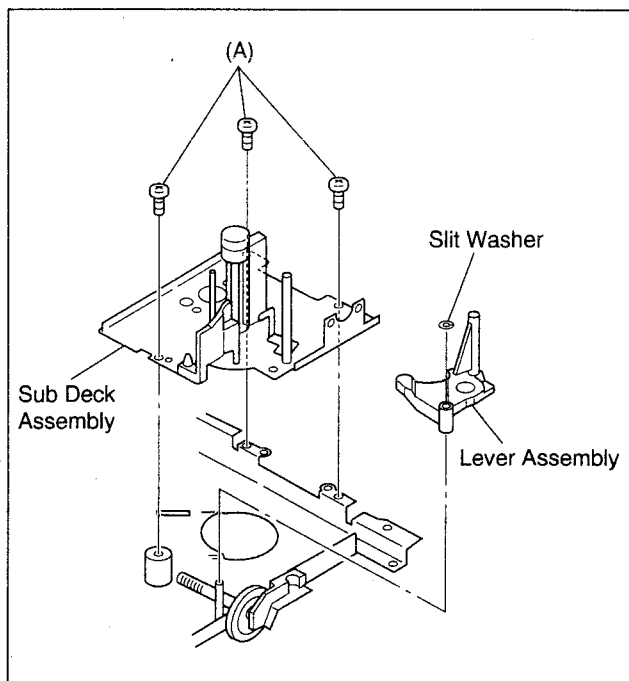


Fig.2-5-9

- (4) Take out the 3 screws (B), then remove the capstan motor from the sub deck assembly.

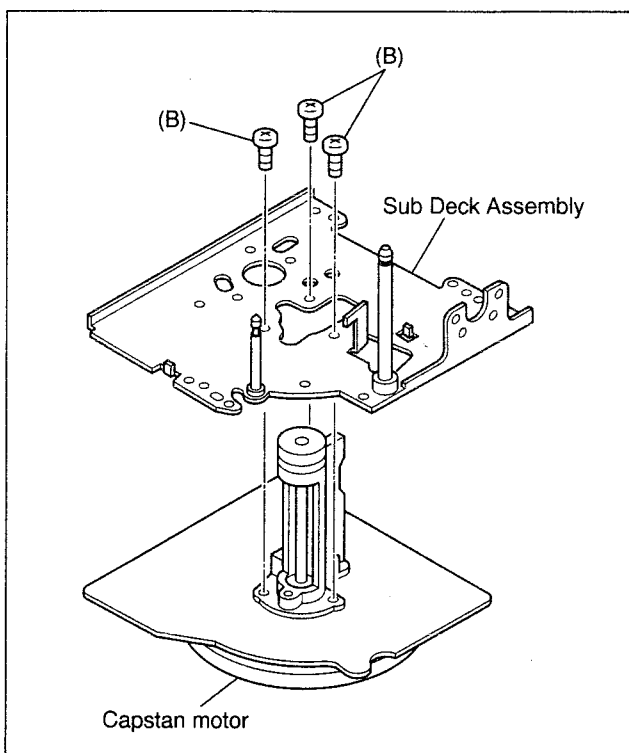


Fig.2-5-10

NOTE: Before removing the capstan brake assembly, it is required to first remove the worm gear assembly and the control cam.

2.5.6 Control Bracket

- (1) Take out the screw (A) and screw (B).
- (2) Remove the control bracket.

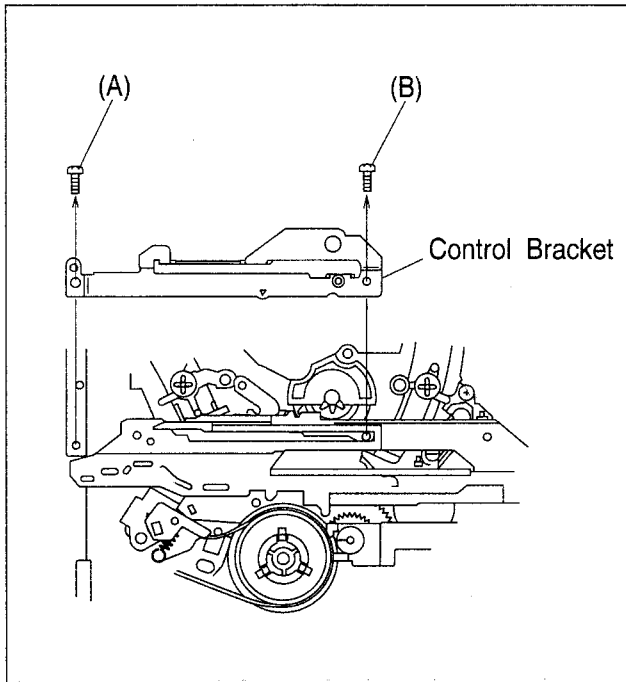


Fig.2-5-11

2.5.7 Slit Disk (Take up)

- (1) Take out the slit washer.
- (2) Remove the slit disk (take up).

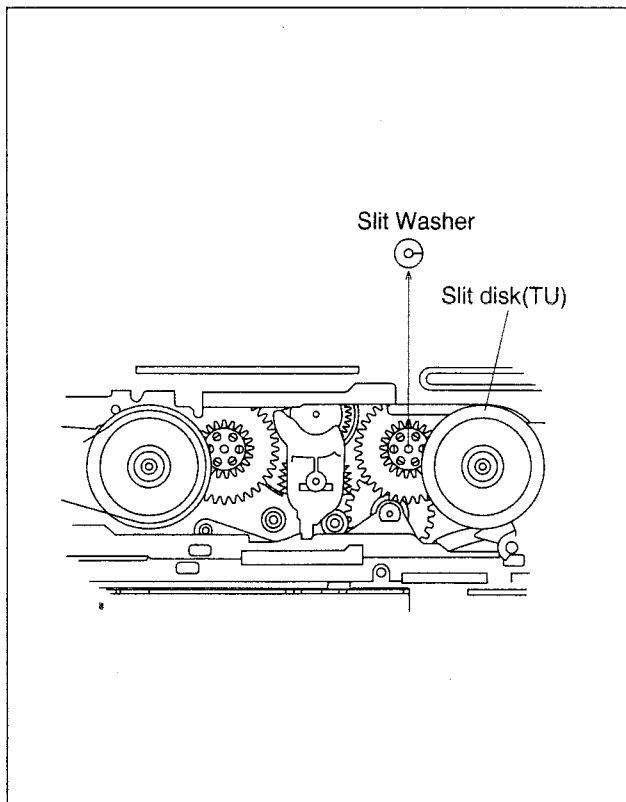


Fig.2-5-12

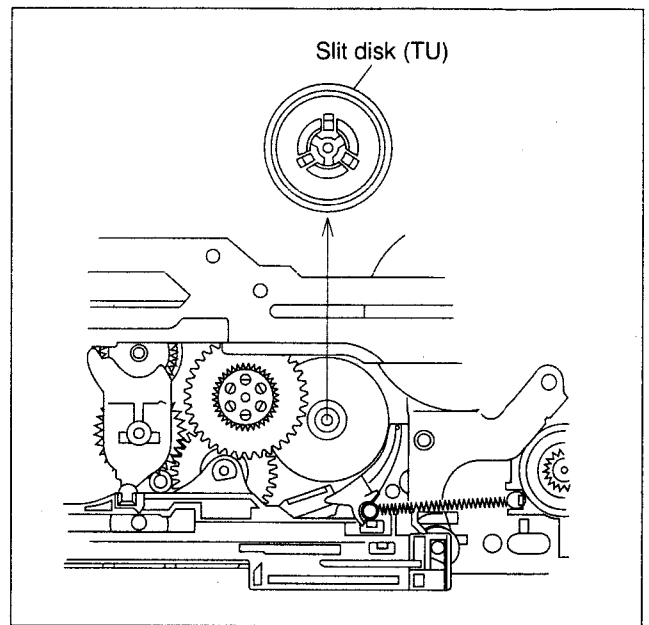


Fig.2-5-13

2.5.8 Control Plate

- (1) Take out the slit washer, disengage the 2 hooks while lifting the control cam side of the control plate, and remove the control plate.

NOTE 1 : After removing the control plate, be careful not to turn the main deck assembly upside down. Otherwise, parts such as the idler lever and clutch unit (take up) may slip out.

NOTE 2 : After removing the control plate, the parts shown in the following figure can be removed. The encircled numbers indicate the removal sequence.

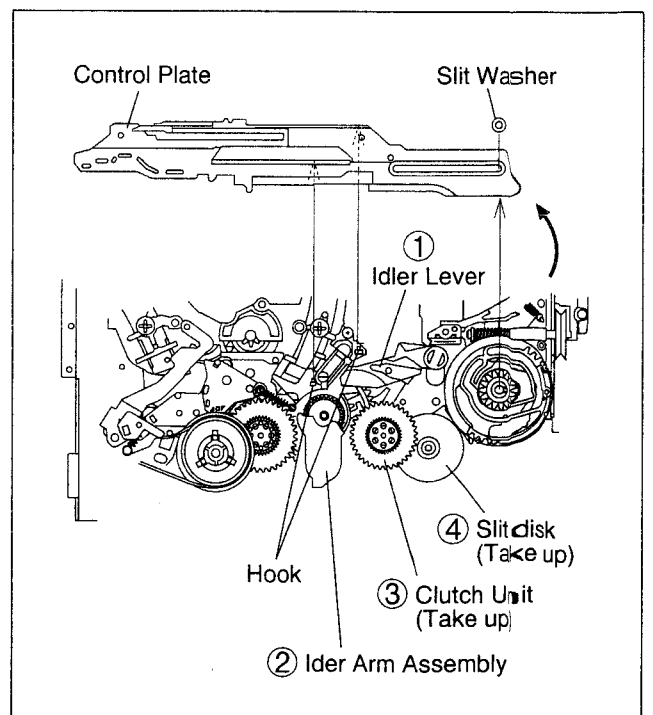


Fig.2-5-14

2.5.9 Sub Brake Assembly (Take up), Control Cam

- (1) Disengage the spring of the sub-brake assembly (take up) and, while pushing the hook in the direction of the arrow, remove the sub brake assembly (take up) upward.
- (2) While pushing the claw in the disengaging direction, remove the control cam.

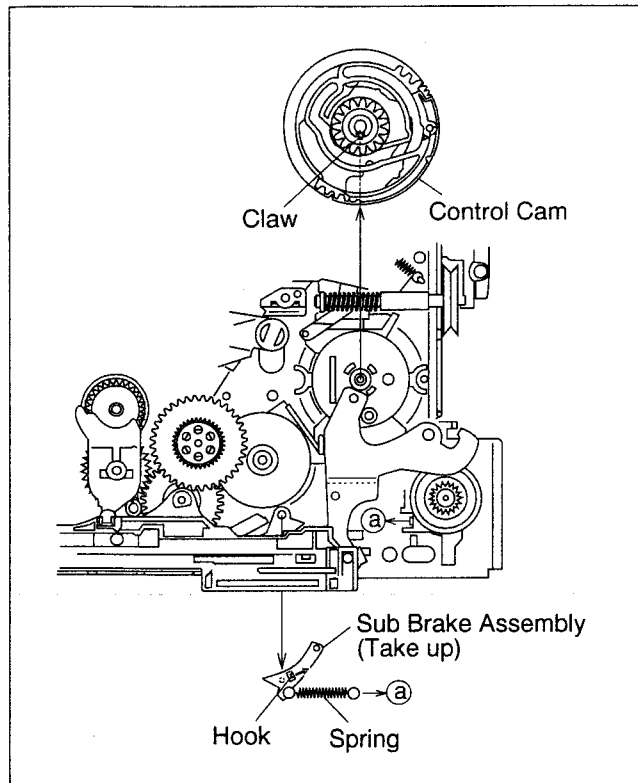


Fig.2-5-15

2.5.10 Slide Plate

- (1) Disengage the 7 claws on the back side of the mechanism assembly by following the order from the claw on one end to that on the opposite end, then remove the slide plate.

NOTE: After removing the slide plate, it is possible to remove the main brake assembly (take up) and the change arm assembly.

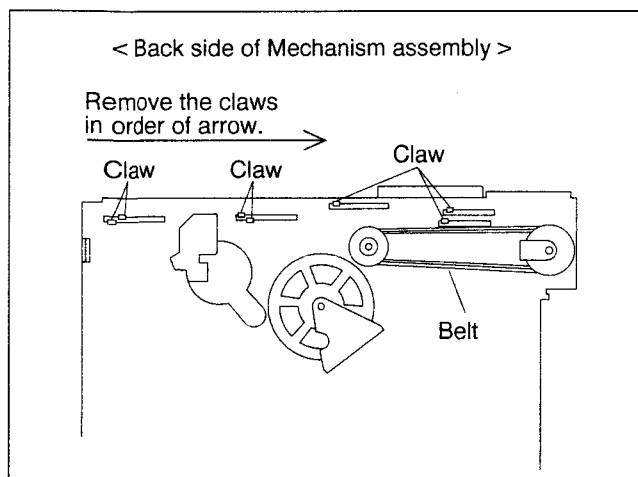


Fig. 2-5-16

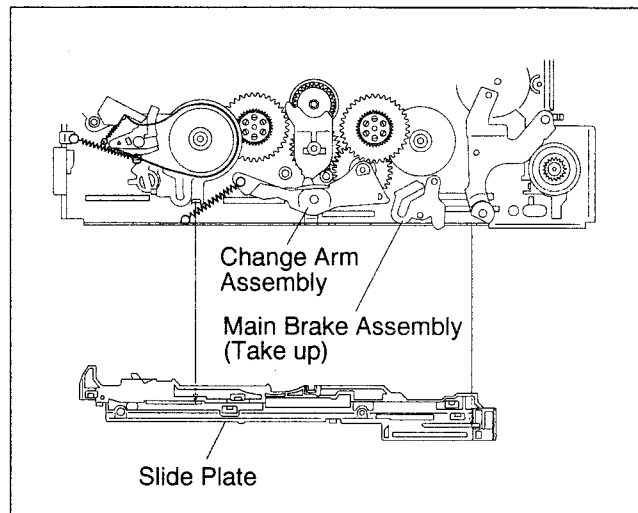


Fig. 2-5-17

2.5.11 Change Lever Assembly, Rotary Encoder

- (1) Slide the change lever assembly in the direction of the arrow and remove.
- (2) While pushing the claws on both sides in the disengaging directions, take out the rotary encoder.
- (3) When attaching the rotary encoder, position it so that the alignment markings face each other as shown in Fig. 2-5-18, then attach the rotary encoder.

NOTE 1: Before removing the change lever assembly, it is required to remove the belt (Fig. 2-5-16).

NOTE 2: Take care of the cassette gear, which is disengaged at the same time as the change lever assembly is removed.

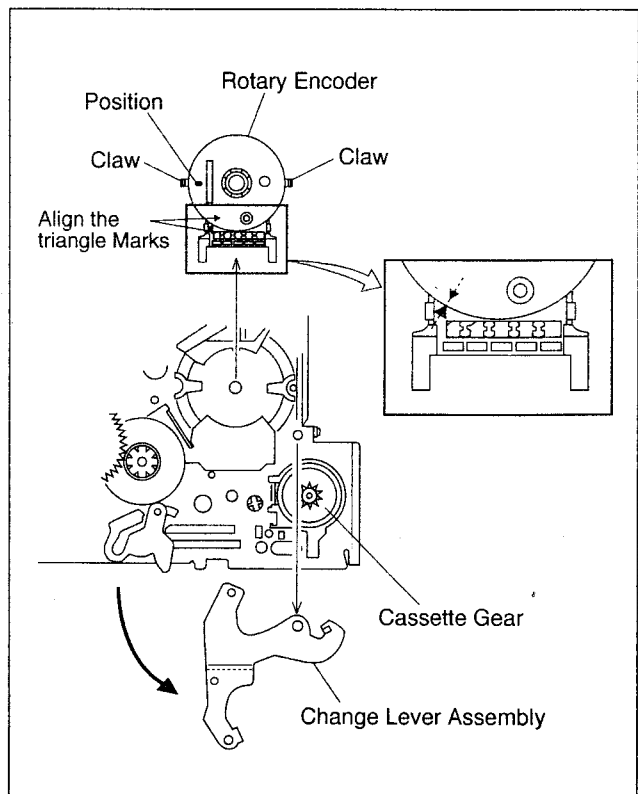


Fig. 2-5-18

2.5.12 Tension Arm Assembly, Tension Band Assembly, Reel Disk (Supply), Sub Brake Assembly (Supply), Clutch Unit (Supply), Take up Lever

- (1) Disengage the spring (a) of the sub brake assembly (supply) from the hook.
- (2) Disengage the spring (c) from the hook.
- (3) Take out the slit washer, and remove the tension arm assembly. Also remove the tension band assembly by disengaging the claw.
- (4) Take out the slit washer, and remove the reel disk (supply).

- (5) While pushing the claw in the disengaging direction, remove the sub brake assembly (supply).
- (6) Remove the clutch unit (supply).
- (7) Remove the take up lever assembly.

NOTE 1: When attaching the tension arm assembly, be sure to adjust the phase of the tension arm lever.

NOTE 2: After removing the clutch unit (supply), it is possible to remove the slit disk (supply) and the main brake assembly (supply).

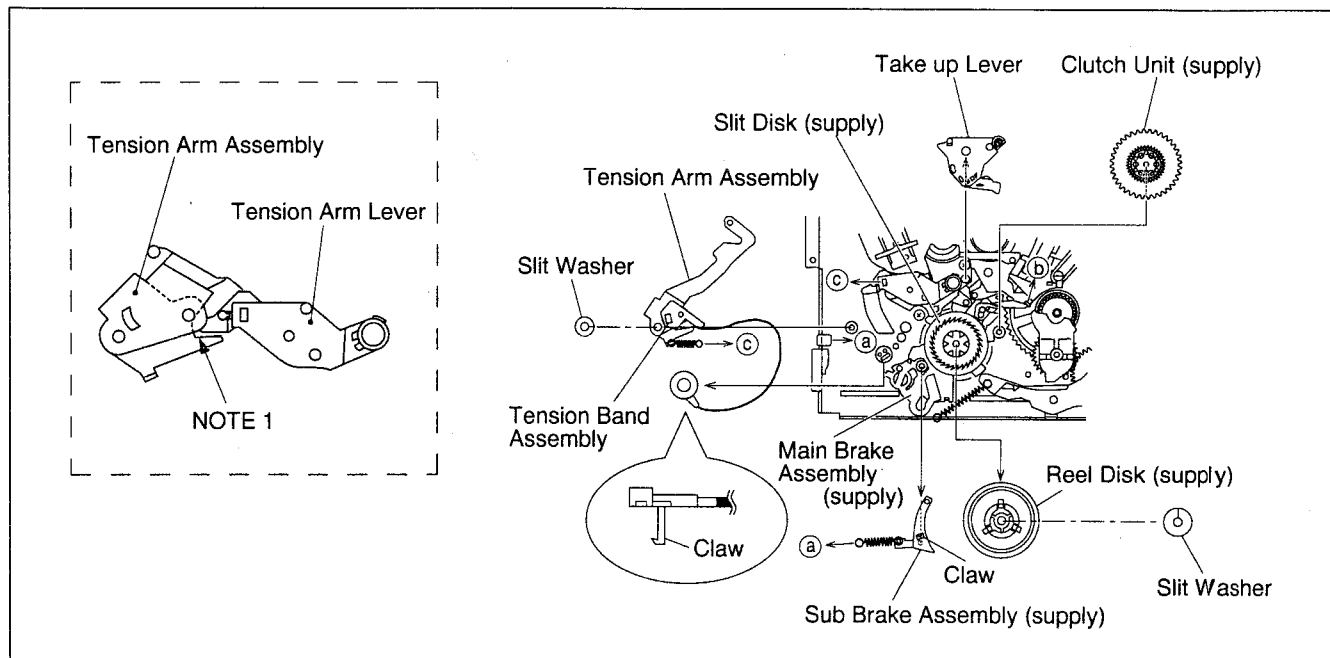


Fig. 2-5-19

2.5.13 Take up Head, Tension Arm Lever

- (1) Remove the take up head and tension arm lever.

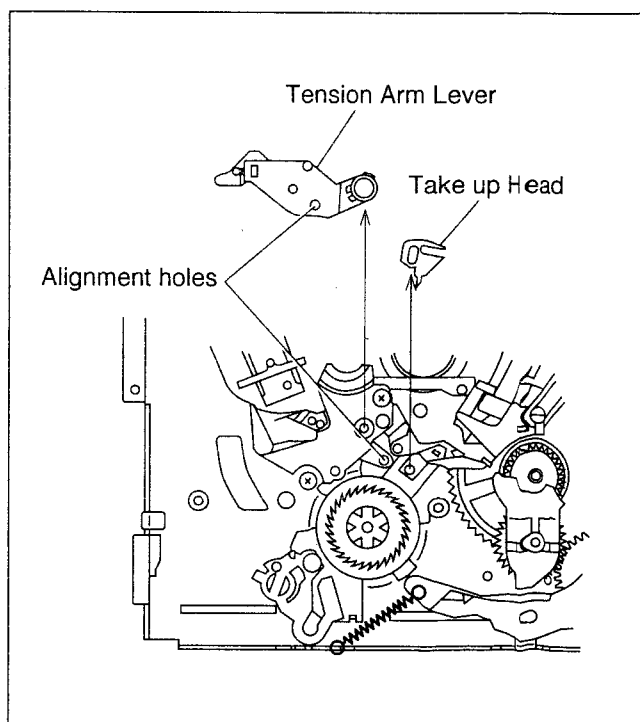


Fig.2-5-20

2.5.14 Guide Rail

- (1) Take out the 5 screws (A) and 1 screw (B).
- (2) By expanding the rails on the outer sides of the guide rail, remove the 2 pole base assemblies (supply, take up).
- (3) Disengage the 4 claws and remove the guide rail.

NOTE : Before removing the guide rail, it is required to remove the drum assembly.

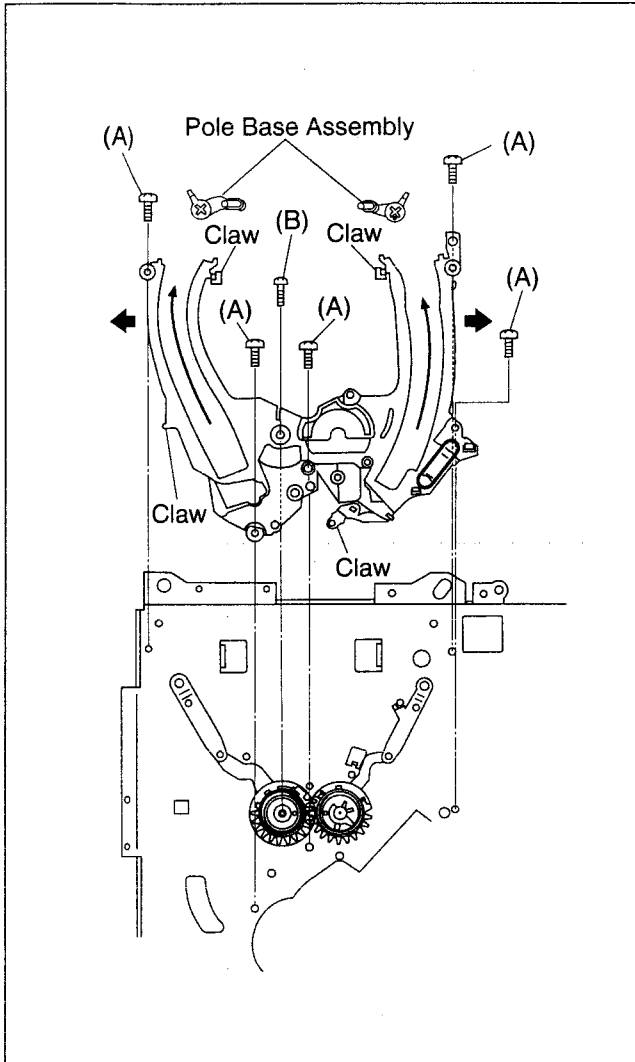


Fig. 2-5-21

2.5.15 Stator Assembly

- (1) Unplug the flat cable.
- (2) Take out the 2 screws (A).
- (3) Remove the stator assembly by lifting it in the direction of the arrow (straight upward).

NOTE 1: Be careful not to lose the brush and spring.

NOTE 2: After attaching, always perform "3.2.1 PB SWITCHING POINT ADJUSTMENT" in "ELECTRICAL ADJUSTMENTS".

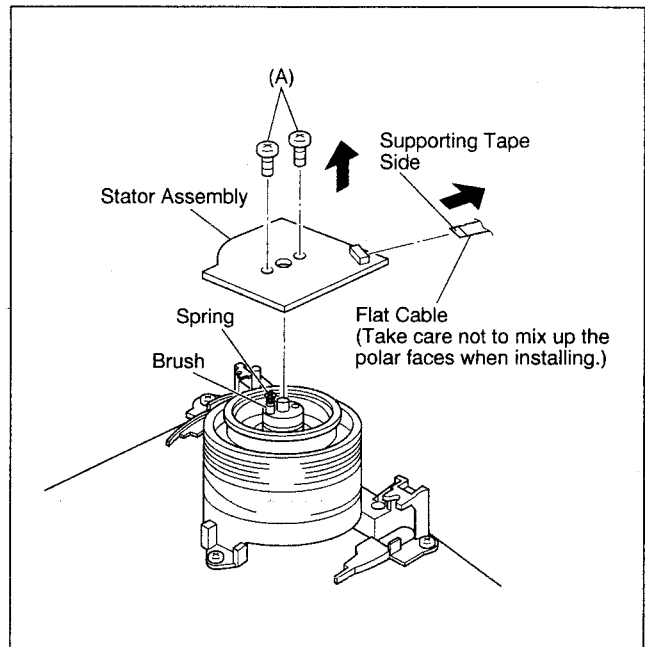


Fig. 2-5-22

2.5.16 Rotor Assembly

- (1) Remove the stator assembly.
- (2) Take out the 2 screws (B) and then remove the rotor assembly.

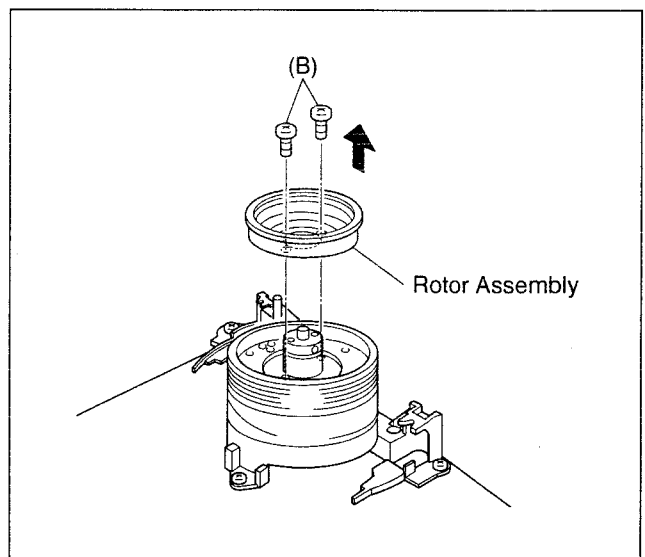


Fig.2-5-23

NOTE : When attaching the rotor assembly, make sure that the phases are matched correctly. Otherwise, normal image cannot be displayed. (Fig. 2-5-24)

- (3) Set the phases of the upper drum assembly and rotor assembly as shown in Fig. 2-5-24.
- (4) Align hole (a) of the upper drum assembly and hole (b) of the rotor assembly, then tighten the 2 screws (B).

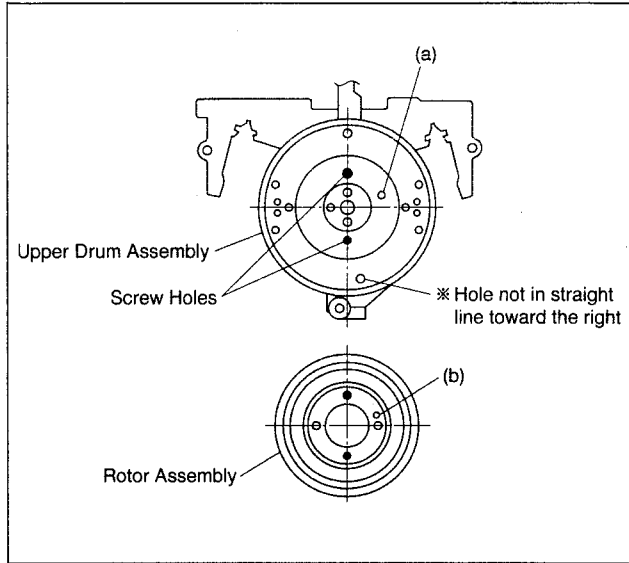


Fig. 2-5-24

2.5.17 Upper Drum Assembly

1. Removal

- (1) Remove the stator assembly and rotor assembly. (See Figs. 2.5.15 and 2.5.16.)
- (2) Loosen the screw of the collar assembly using an hexagonal wrench (1.5 mm), then remove the collar assembly.

NOTE: Be careful not to lose the brush and spring.

- (3) Remove the upper drum assembly, then take out the washer using a pair of tweezers.

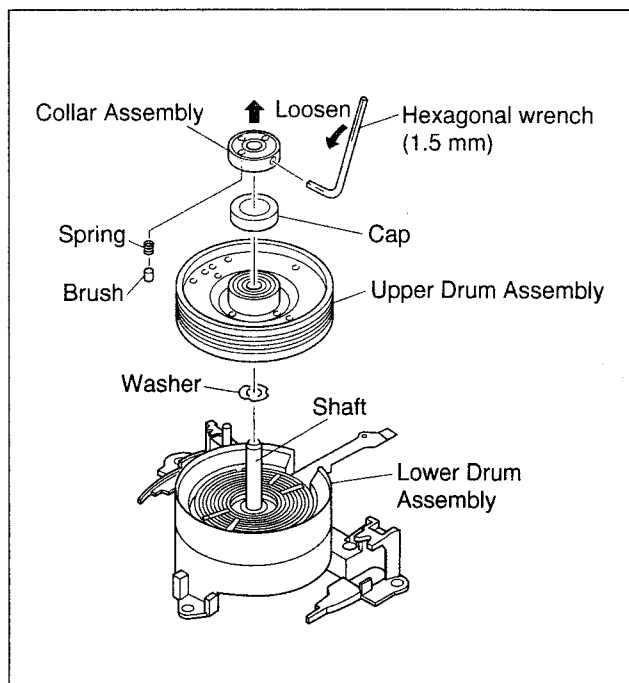


Fig. 2-5-25

2.5.18 Installation

- (1) Clean the coil sections of the lower drum assembly and new upper drum assembly using a tool such as an air brush.
- (2) Attach the new washer and upper drum assembly to the drum shaft. (See Fig. 2-5-25.)

NOTE: When replacing the upper drum assembly, also replace the washer.

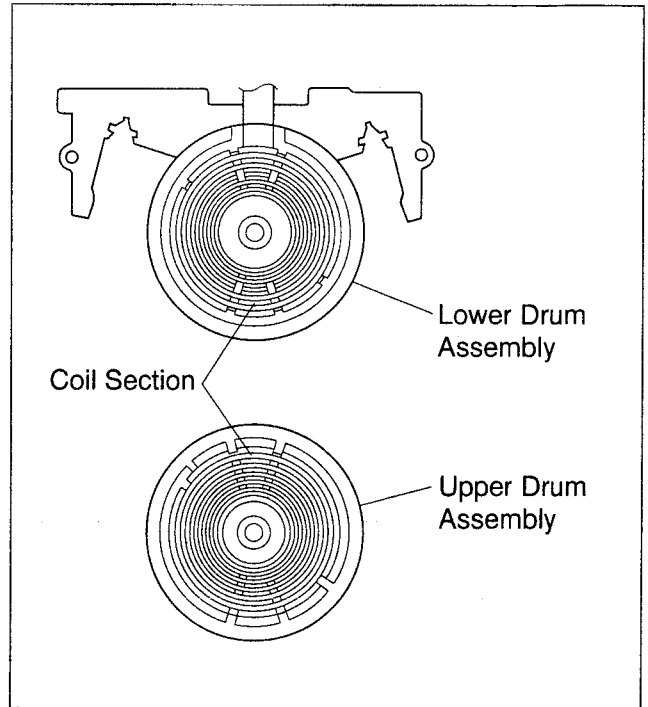


Fig. 2-5-26

- (3) Determine the positioning of the collar assembly by taking care of its vertical alignment as shown in Fig. 2-5-27.

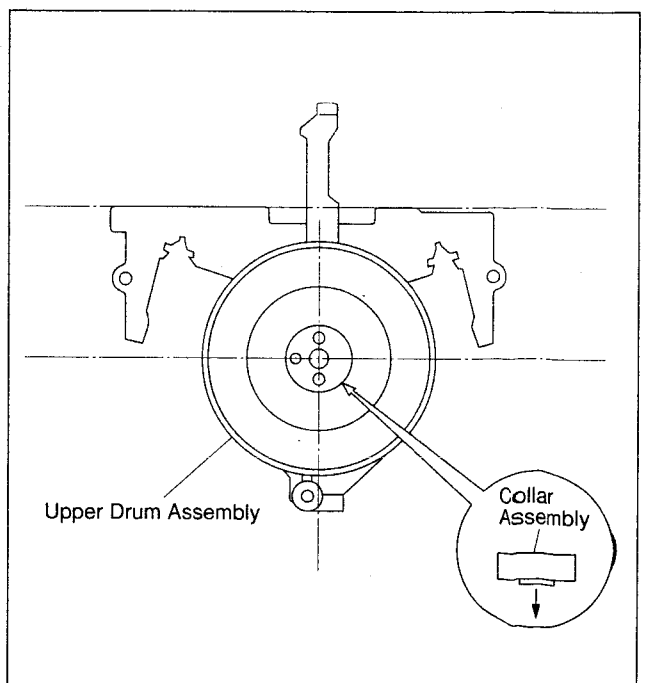


Fig. 2-5-27

- (4) While pushing down with fingers, clamp the collar assembly using an hexagonal wrench.

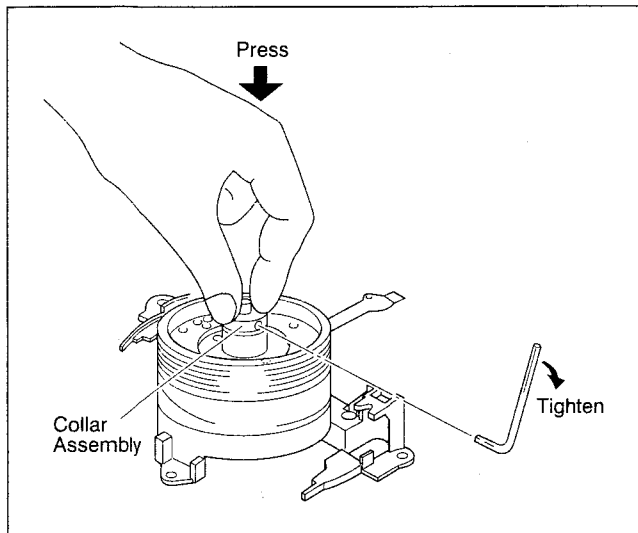


Fig.2-5-28

- (5) After attaching, try rotating the upper drum with the hand to confirm that it can rotate normally.
- (6) Place the brush and spring in the hole of the collar assembly. Subsequently, take special care so as not to lose the parts.
- (7) Attach the rotor assembly and stator assembly as described in 2.5.15 and 2.5.16.
- (8) After attaching, clean the upper drum assembly and lower drum assembly, and perform the following adjustments.
- PB switching point adjustment
 - Slow tracking adjustment
 - Compatibility adjustment (Be sure to check the LP mode.)

2.6 INSTALLATION OF MAIN PARTS (Mechanism Phase Alignment)

2.6.1 Before Assembly

The mechanism of this model is closely related with the rotary encoder and the system control circuitry. The connection between the rotary encoder and control cam determines the movement of all mechanical parts including the slide plate, loading arm assembly, control plate and brake. If these parts are not installed in the correct positions, operations such as loading and unloading will not be possible.

Installation of the main parts (mechanism phase alignment) should be performed exclusively in the mechanism operation mode, as with the operations in the previous sections.

2.6.2 Loading Arm Assemblies (Supply, Take up)

- (1) Attach the loading arm assembly (supply) and loading arm assembly (take up) so that the alignment markings on their gears face each other and the holes on their arms are respectively aligned with the holes on the main deck.
- (2) Attach the guide rail, attach the pole base assemblies onto the extremities of the arms, then perform the unloading operation so that the pole base assemblies come to the most forward positions.

NOTE: When attaching the pole base assemblies (supply/take up), temporarily tighten the 3 screws other than the 2 screws on the sides of the guide rail extremities so that the parts do not slip out.

- (3) Attach the surrounding parts of the guide rail.

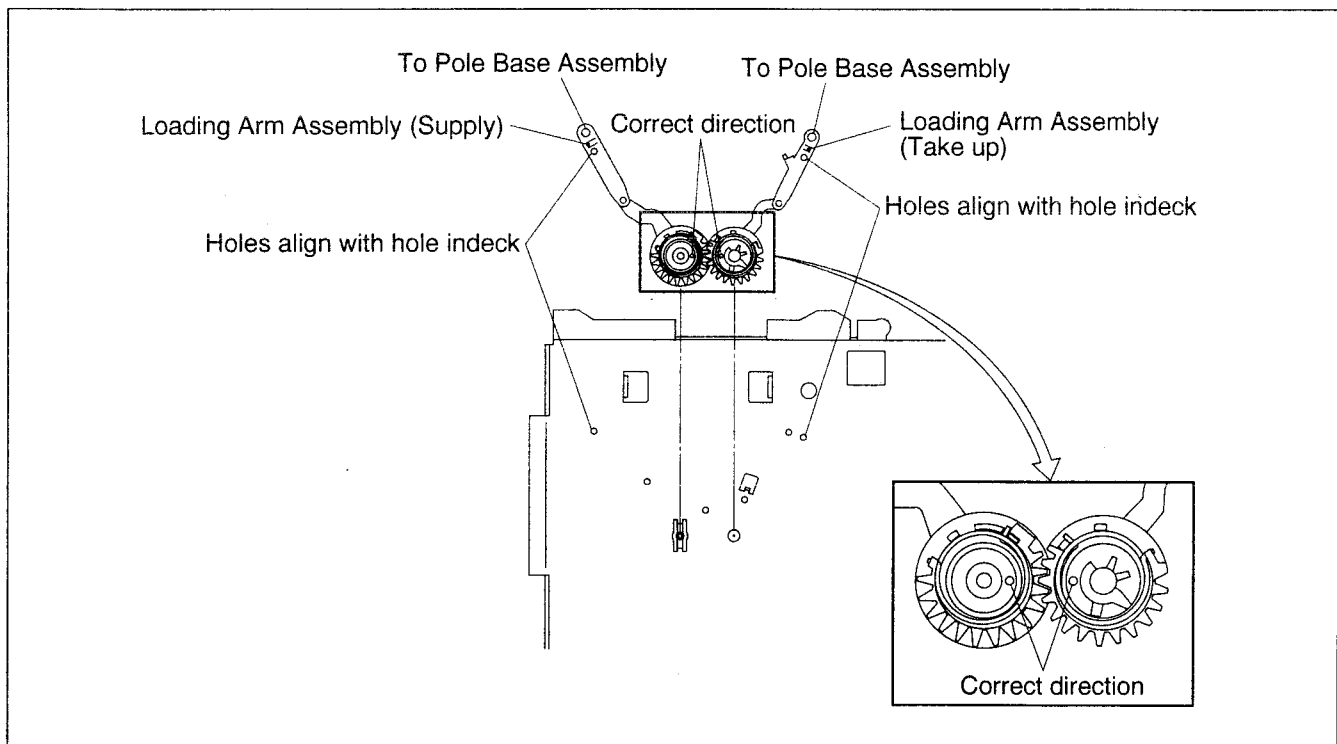


Fig. 2-6-1

2.6.3 Rotary Encoder, Change Lever Assembly, Control Cam

- (1) To attach the rotary encoder, align the triangular alignment markings and push the rotary encoder in until the claws are locked.
- (2) To attach the change lever assembly, align its holes with the holes on the mechanism assembly. As the change lever assembly is projected on the rear side of the mechanism assembly, take care that the assemblies are not separated from each other.
- (3) To attach the control cam, align its holes with the holes on the mechanism assembly by pushing the capstan brake assembly downward.

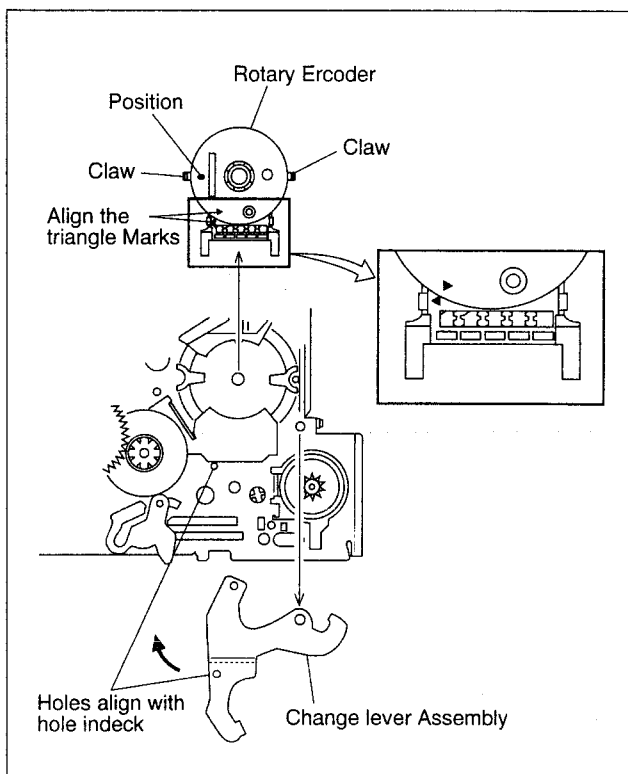


Fig. 2-6-2

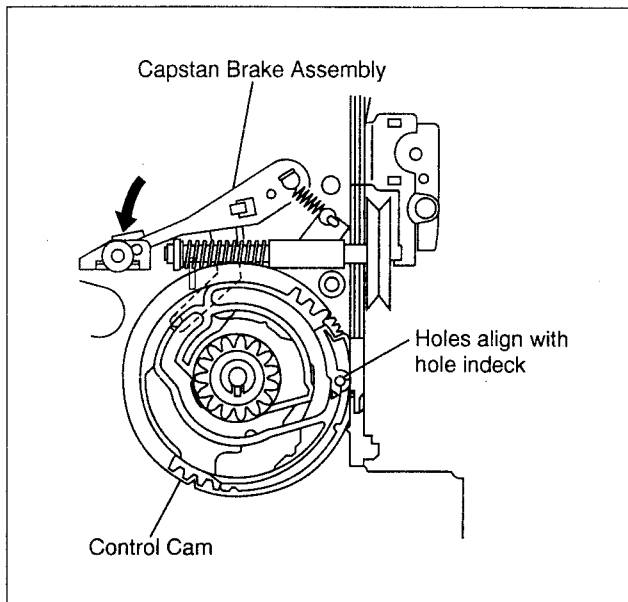


Fig. 2-6-3

2.6.4 Slide Plate

- (1) While pushing down the main brake assemblies (supply, take up) so that they come in contact with the extremity of the mechanism assembly, attach the slide plate so that its alignment holes are aligned with the holes of the mechanism assembly.

NOTE: Free the spring of the sub-brake assembly (supply) during installation.

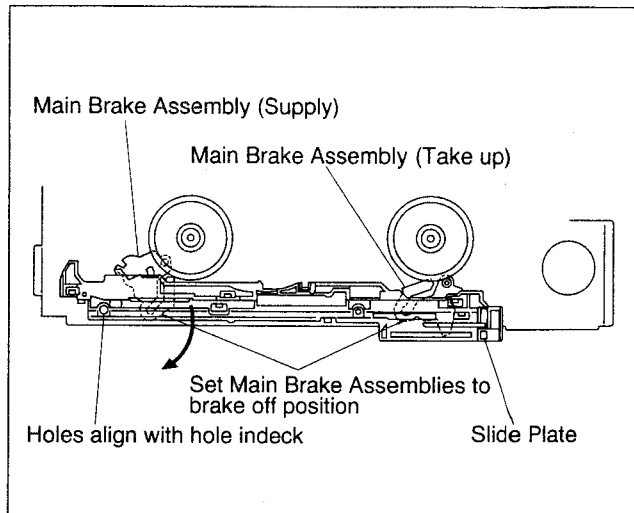


Fig.2-6-4

2.6.5 Control Plate

- (1) Attach the control plate by aligning the 2 alignment holes on the control plate with the alignment holes on the main brake assembly as well as the alignment holes on the take up lever. As the take up lever is pulled by a tension spring, use a pair of tweezers or similar tool to align the holes.
- (2) After attaching the control plate, lock it with the slit washer and control bracket.

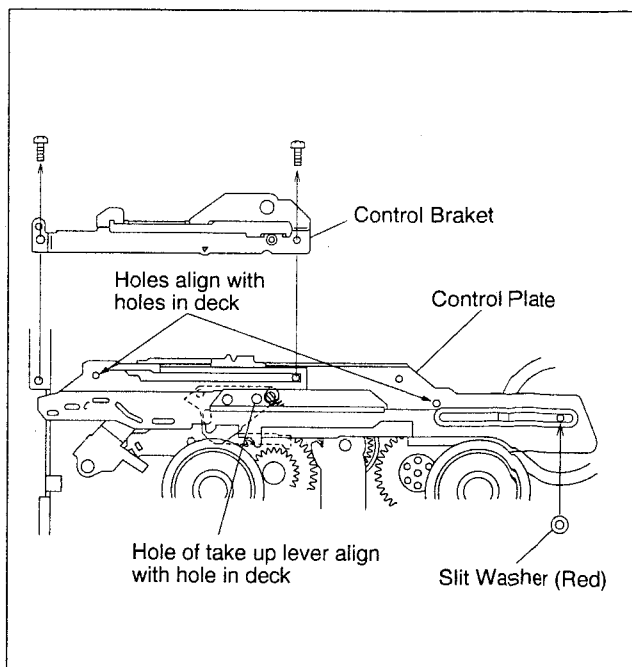


Fig. 2-6-5

2.7 MECHANISM TIMING CHART (VHS SECTION)

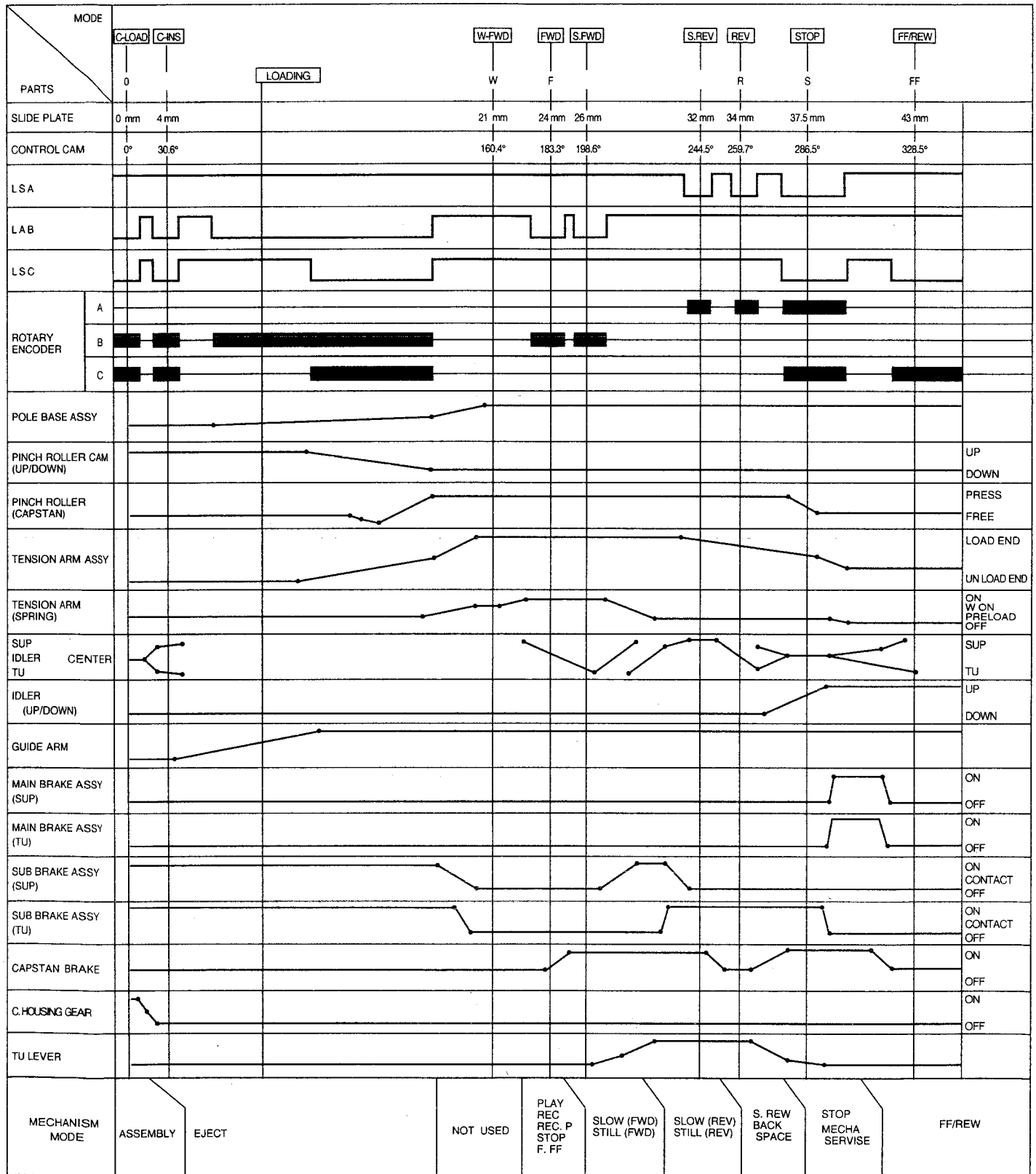


Table 2-7-1

2.8 COMPATIBILITY ADJUSTMENT

NOTE : • The compatibility adjustment is a critical operation, but is not required in usual servicing. It is required for example after the audio control head, drum assembly and/or tape transport parts have been replaced.

- To avoid damaging the alignment tape, prepare a cassette tape (for use in self-recording/playback) and use it first to check the tape transport before starting the compatibility adjustment.

2.8.1 FM Waveform Linearity Check/Adjustment

- (1) Connect an oscilloscope to TP106 (PB FM) on the MAIN board assembly, and connect the external sync to TP111 (D.FF) on the MAIN board assembly.
- (2) Play the MHPE alignment tape and observe the FM waveform.
- (3) Press the two channel buttons (+, -) on the set simultaneously during playback to initiate manual tracking. (The tracking is set to the centre position at this time.)
- (4) Check that the FM waveform level is not decreased significantly by the tracking operation and that it shows overall parallel, linear variation. Perform the following adjustments if it is deemed necessary. (Fig. 2-8-1)
- (5) Using a hexagonal wrench, gently loosen the set screw at the bottom of the pole base assembly. (Be careful not to loosen it too much.) (Fig. 2-8-2)
- (6) Decrease the FM waveform by pressing the channel button (+, -) of the set during playback. If a drop in level is observed on the left side as shown in Fig. 2-8-3, make the FM waveform linear by turning the supply guide roller on the pole base assembly (supply) using roller driver (PTU94002). If a drop in level is observed on the right side, make the FM waveform linear by turning the take up guide roller on the pole base assembly (take up). (Fig. 2-8-3)
- (7) Then play MHPE-L and check that the FM waveform can be varied in parallel and linearly by the tracking operation. Fine-adjust the guide rollers of the pole base assemblies (supply, take up) as required.
- (8) After completing adjustment, tighten the set screw at the bottom of the pole base assembly. (Be careful not to tighten it too much.)
- (9) After tightening the set screw, play the MHPE and MHPE-L alignment tapes and confirm that the FM waveform varies normally.

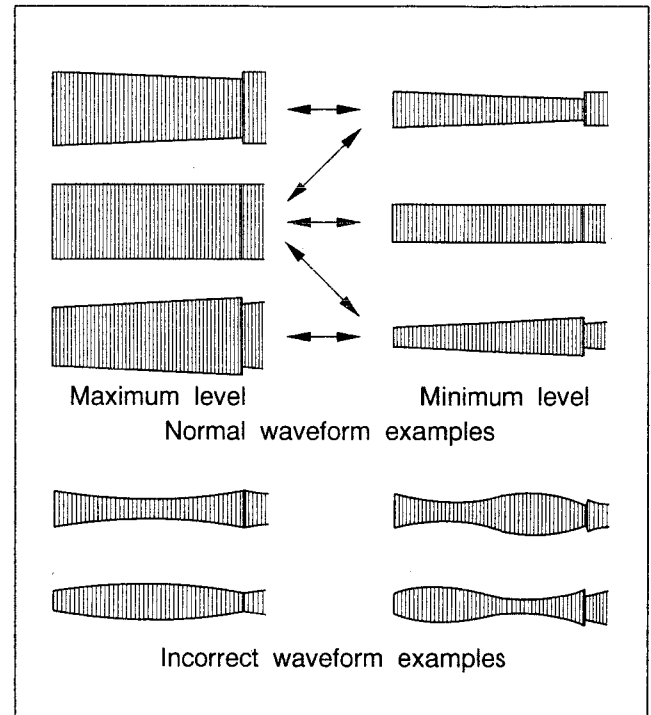


Fig. 2-8-1

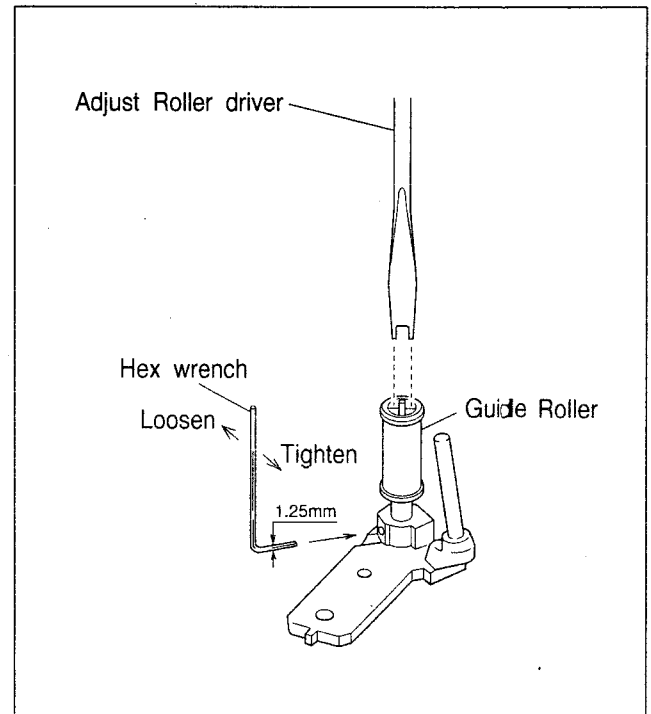


Fig. 2-8-2

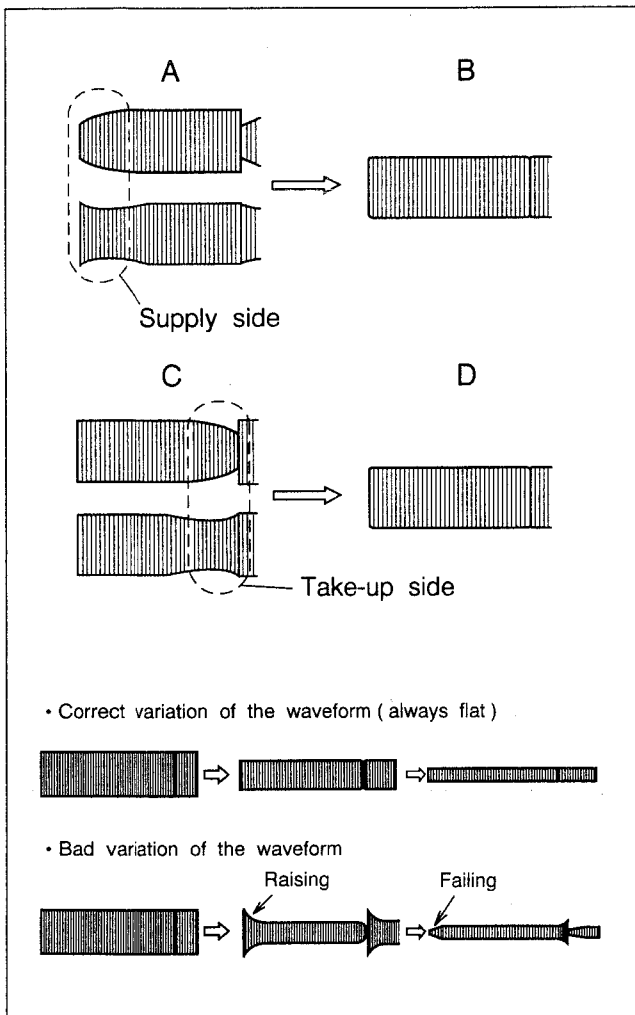


Fig. 2-8-3

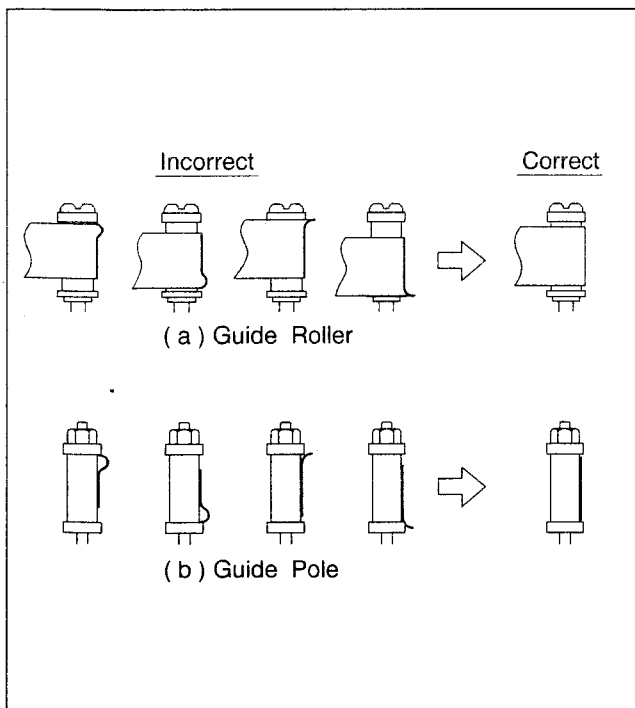


Fig. 2-8-4

2.8.2 Audio Control Head Azimuth and Tilt Check/Adjustment

NOTE : To facilitate the adjustment, set the A/C head height temporarily in advance. (Fig. 2-8-5)

- (1) Connect CH1 of an oscilloscope to AUDIO OUT and CH-2 to TP4001 (CTL. P) on the main board, and observe the waveforms of the two channels in the ALT mode.
- (2) Play the MHPE alignment tape and adjust screws (1), (2) and (3) little by little to maximize both the audio output and control pulse waveforms. Screws (1) and (3) adjust the tilting and screw (2) adjusts the azimuth.

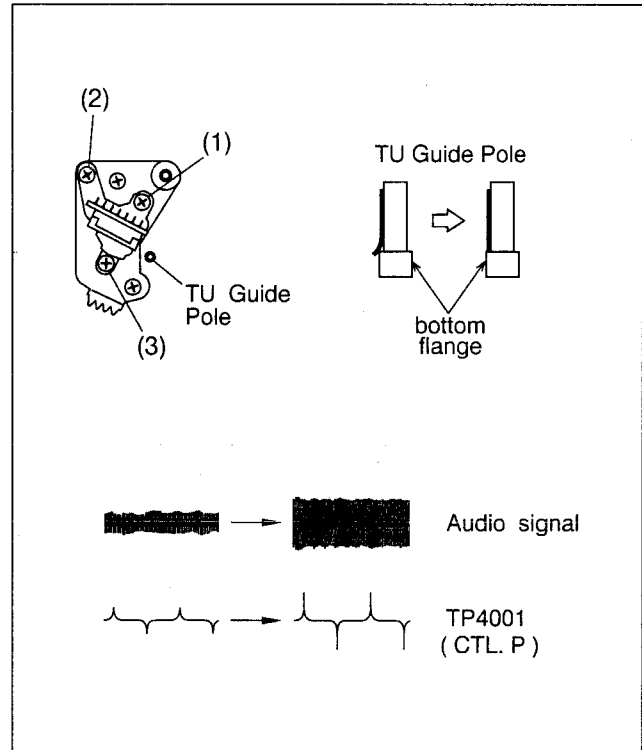


Fig. 2-8-5

2.8.3 Audio Control Head Phase (X-Value) Check/Adjustment

- (1) Connect an oscilloscope to TP106 (PB FM) on the MAIN board assembly, and connect the external sync to TP111 (D.F.F) on the MAIN board assembly.
 - (2) Play the MHPE alignment tape and observe the FM waveform.
 - (3) Press the two channel buttons (+, -) on the set simultaneously during playback to initiate manual tracking. (The tracking is set to the centre position at this time.)
 - (4) Loosen screws (4) and (5), then set the A/C head positioning tool (PTU94010) as shown in Fig. 2-8-6.
 - (5) Turn the A/C head positioning tool to move the audio control head fully toward the capstan.
- Gradually return the audio control head toward the drum, stop the movement at the first point where the FM waveform is maximized, and fix screw (4) temporarily.
- (6) Play the MHPE-L alignment tape.
 - (7) Press the two channel buttons (+, -) on the set simultaneously during playback to initiate manual tracking. (The tracking is set to the centre position at this time.)
 - (8) Perform tracking and check that the FM waveform is maximized.
 - (9) If it is not maximized, loosen temporary-fixed screw (4), turn the A/C head positioning tool to move the audio control head to the nearest point where the FM waveform is maximized, and tighten screws (4) and (5).

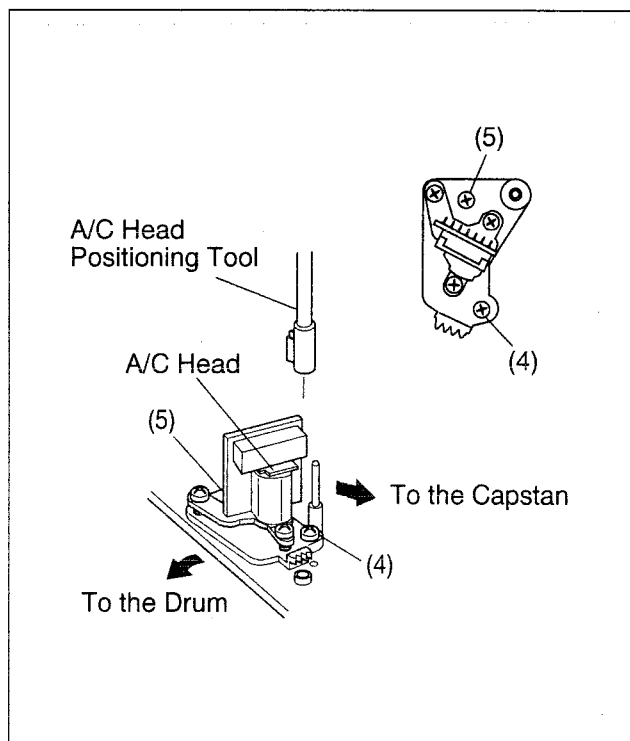


Fig. 2-8-6

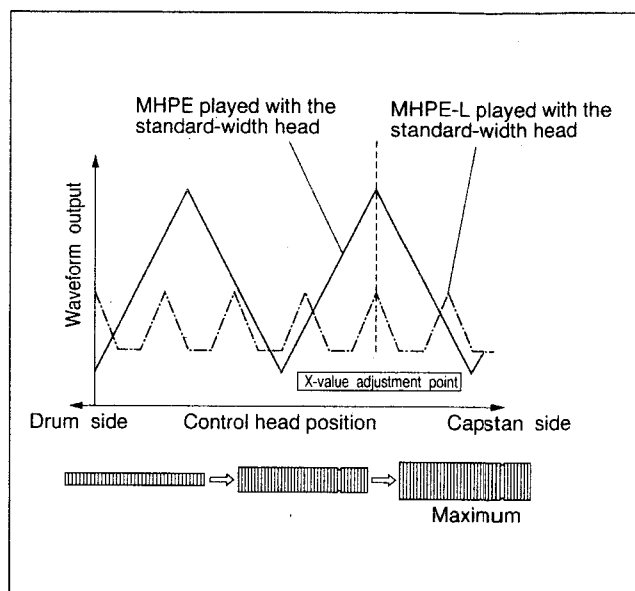


Fig. 2-8-7

2.8.4 Presetting the LP Mode Auto Tracking

Note: Set the remote control code of the video recorder to A mode.

(The unit set in B mode does not accept the remote control code of the Jig RCU.)

- (1) Connect an oscilloscope to TP106 (PB FM) of the MAIN board assembly and the external sync to TP111 (D.F.F) of the MAIN board assembly.
- (2) Play the MHPE-L alignment, then observe the FM waveform and confirm that the auto-tracking operation has completed.
- (3) Transmitting the data code "50" with the Jig RCU twice.
- (4) Check that the MHPE-L is not ejected.
- (5) If the MHPE-L is ejected, adjust the audio control head phase (X-value) again.

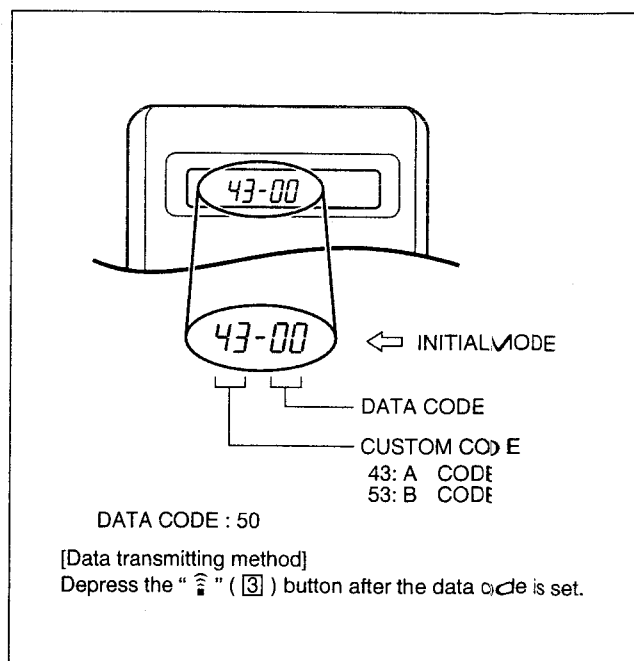


Fig. 2-8-8

2.8.5 Tension Pole Position Check/Adjustment

- (1) Play the back-tension cassette gauge (PUJ48076-2) and check that it indicates a value between 29 and 46 g-cm.
- (2) If the reading is outside the above range, adjust with the following procedure.
 - 1) Set the mechanism service mode. (See "1.9 MECHANISM SERVICE MODE.")
 - 2) Initiate the play mode and adjust the pin with a flat-blade screwdriver, paying attention not to touch the pole with a diameter of $\phi 2.5$ mm. (Fig. 2-8-9)

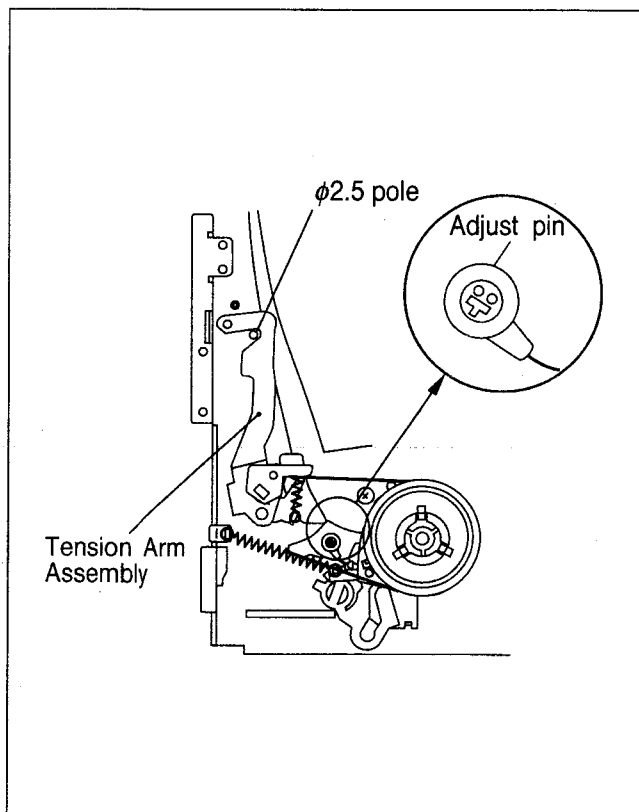


Fig. 2-8-9

MECHANISM ADJUSTMENT (DV)

2.9 PREPARATION

2.9.1 Precautions

- (1) Observe the specified screw tightening torque when attaching parts. The torque should be 0.04 N·m (0.4 kgf·cm) unless otherwise specified.
- (2) Always disconnect the power supply unit before proceeding to solder or attach parts.
- (3) When plugging or unplugging a wire, be careful not to damage the connector.
- (4) When replacing a part, be careful not to damage other parts or to mistakenly attach parts.

2.9.2 Tools Required for Adjustments

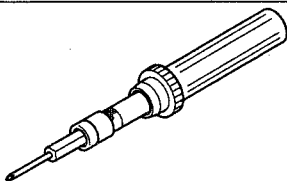
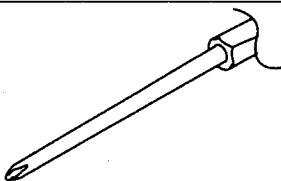
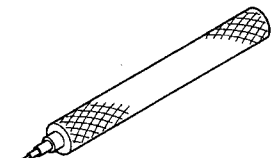
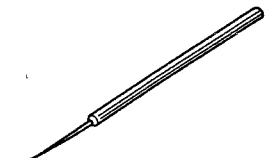
1	TORQUE DRIVER YTU94088	2	BIT YTU94088-003
			
3	Tool for installing slit washer YTU94121A	4	Tool for replacing tip IC PTS40844-2
			

Table 2-9-1 Tools Required for Adjustments

2.9.3 Disassembly and Assembly Procedures

The following table shows the steps for assembling or disassembling the mechanism parts. Read the following descriptions carefully before actual assembly/disassembly operations.

- (1) : Order of disassembly steps. Reverse this order when assembling.
- (2) : Name of the disassembled/assembled part.
- (3) : Surface where the disassembled/assembled part is mounted. T = Top. B: Bottom.
- (4) : Number of disassembly drawing.

- (5) : Parts to be removed in disassembly/assembly, such as screws, washers and springs, and the points.

Symbol	Name & Point
S	Screw
W	Washer
P	Spring
*	Connector, lock(L), soldering(SD), shield, etc.

- [Example] • (W1) = Remove the washer W1.
• (P1) = Remove the spring P1.

- (6) : Notes for disassembly/assembly.

- (7) : For the phase alignment in disassembly/assembly and the parts which require phase adjustments after assembly, see "2.16 MECHANISM PHASE CHECK/ADJUSTMENT".

2.9.4 Screws and Washers Used in Disassembly/Assembly of the Mechanism Assembly

Table 2-9-1 shows the symbols, designs, part numbers and colours of the screws and washers used in the mechanism assembly.

When disassembling or assembling the mechanism assembly, be sure to attach screws and washers correctly by referring to the following table.

Symbol	Shape	Part number	Colour
(S1)		QYTDSP2004Z	GOLD
(S2)		YQ43893	SILVER
(S3)		YQ43893-7	BLACK

Symbol	Shape	Part number	Colour
(W1)		YQ44246	RED
(W2)		YQ44246-3	BLACK
(W3)		YQ43933-2	BLACK

Table 2-9-1

STEP /LOC No.	PART NAME	FIG. No.	POINT	NOTE	DISCRIPTION
①	Ⓐ Cassette housing assembly/ Ⓑ Mechanism assembly	T	1	2(S1),(L1) – (L5)	1
②	① Drum assembly	T	2	3(S2)	2,3
③	② Motor bracket assembly	T	2	4(S2)	2,4
④	③ Middle catcher assembly	T	3	3(S2)	—

↑
(1)

↑
(2)

↑
(3)

↑
(4)

↑
(5)

↑
(6)

↑
(7)

2.10 DISASSEMBLY/ASSEMBLY OF THE MECHANISM ASSEMBLY

2.10.1 Introduction

The disassembly and assembly of the mechanism assembly should usually be performed in the ASSEMBLY mode. (Table 2-10-1)

Note that the mechanism is in the cassette in (C-IN) mode when the mechanism assembly is taken out of the set and that the C-IN mode should be switched to the ASSEMBLY mode in this case.

To set the ASSEMBLY mode, apply 3 V DC to the electrodes on the upper part of the loading motor as shown in Fig. 2-10-7.

MODE		<									
------	--	--	--	--	--	--	--	--	--	--	--

Table 2-10-1

2.10.2 Mechanism Modes

The mechanism has 6 modes as shown in Table 2-11-1. The current mode can be confirmed by the positioning of the "○" marking on the sub-cam gear and the "▲" marking on the mechanism.

See the following figures (Figs. 2-10-1 to -6) for details.

NOTE: This mechanism assembly has another ASSEMBLY mode. However, this mode cannot be identified from the markings because it corresponds to an intermediate position between the C-IN (C) mode and S-FF (H) mode. This mode can be confirmed by the rotary encoder phase. See Fig. 2-10-7.

1. Checking the mechanism mode

<C-IN : (C)>

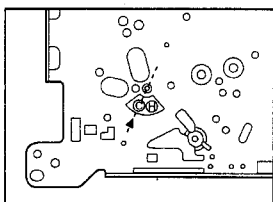


Fig. 2-10-1

<S-FF : (H)>

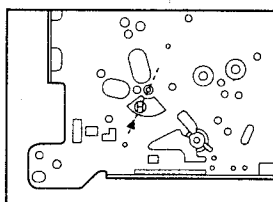


Fig. 2-10-2

<PLAY : (P)>

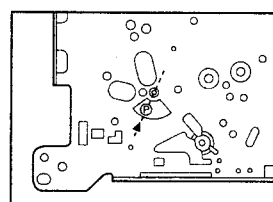


Fig. 2-10-3

<REV : (R)>

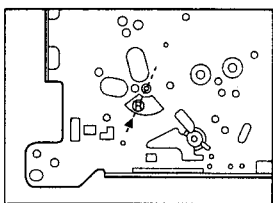


Fig. 2-10-4

<STOP : (S)>

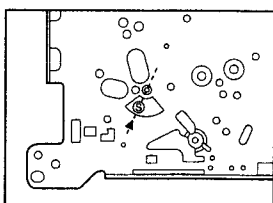


Fig. 2-10-5

<FF/REW : (F)>

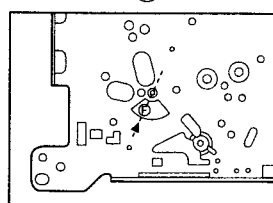


Fig. 2-10-6

2. Setting/checking the ASSEMBLY mode

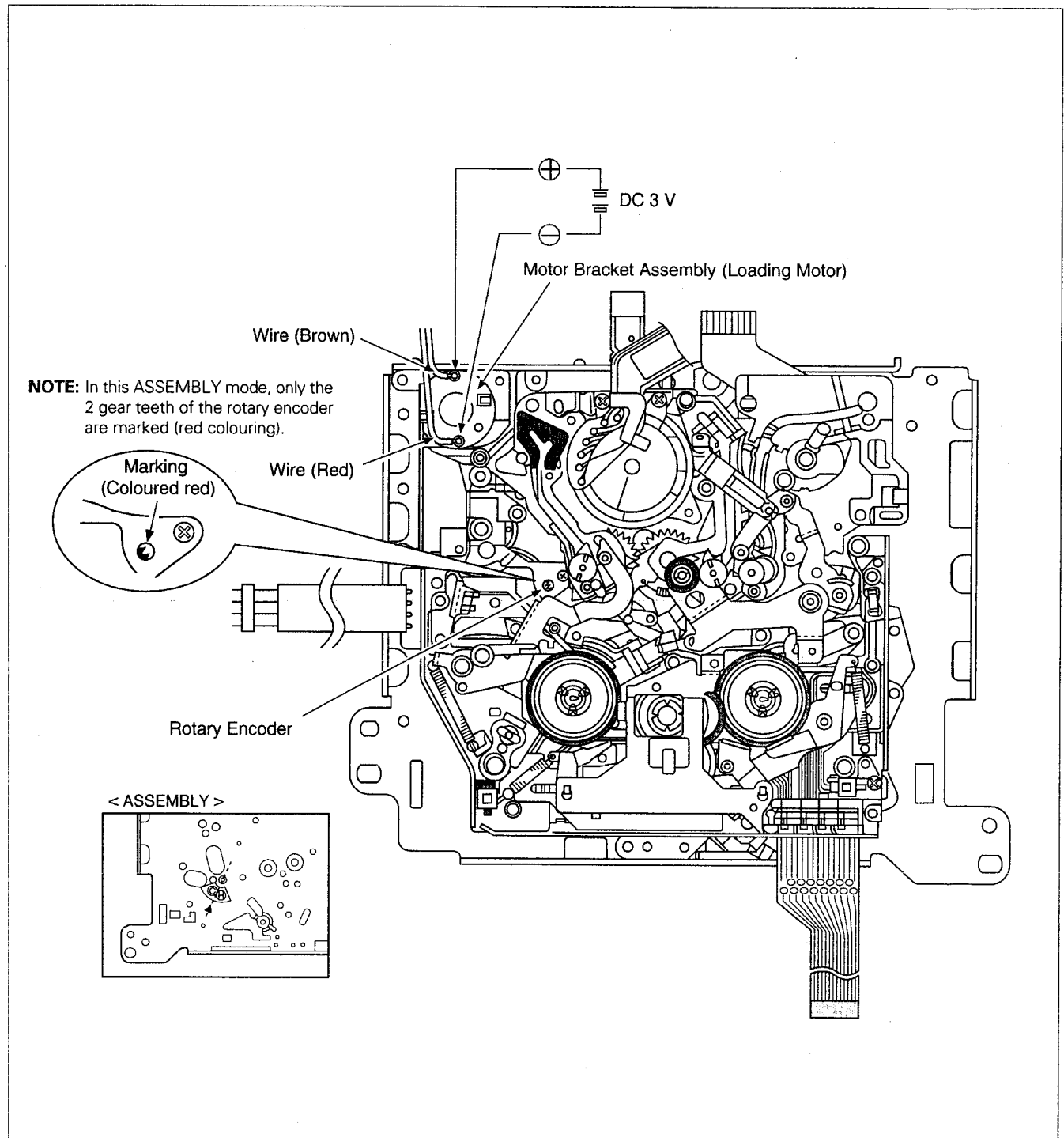


Fig. 2-10-7

2.11 MECHANISM TIMING CHART

See following table (Table 2-11-1).

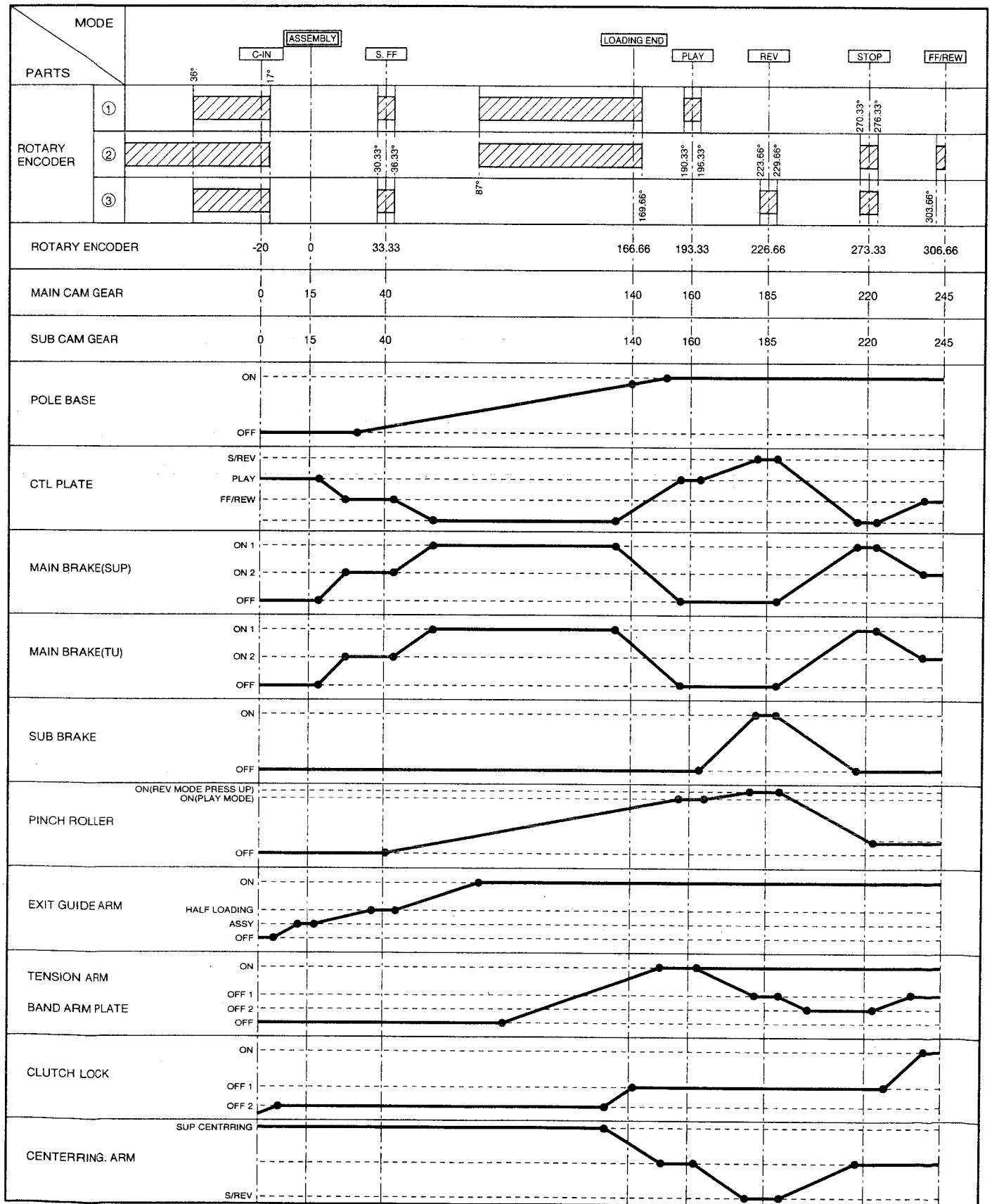


Table 2-11-1

2.12 MECHANISM ASSEMBLY/DISASSEMBLY PROCEDURE TABLE

STEP /LOC No.	PART NAME	FIG. No.	POINT	NOTE	DISCRIPTION
1	Ⓐ Cassette housing assembly/ Ⓑ Mechanism assembly	T 2-13-1	2(S1),(L1) – (L5)	1	
2	① Drum assembly	T 2-13-2	3(S2)	2,3	
3	② Motor bracket assembly	T 2-13-2	4(S2)	2,4	
4	③ Middle catcher assembly	T 2-13-3	3(S2)	—	
5	④ Reel cover assembly	T 2-13-3	(S2), 2(L6)	5	
6	⑤ Pinch roller arm assembly	T 2-13-4	(W1), (L7)	6	
7	⑥ Sub brake assembly	T 2-13-4	(P1), (W1), (L8)	—	
8	⑦ Band arm plate assembly	T 2-13-4	(S3), (L9), (P2), (W2)	7,8	
9	⑧ Tension arm assembly	T 2-13-4	(P3)	8	
10	⑨ EXIT guide arm assembly	T 2-13-5	(W1)	—	
11	⑩ Swing arm assembly	T 2-13-5	—	—	Position alignment
12	⑪ Sub deck assembly	T 2-13-6	4(S2)	9	Position alignment
13	⑫ Main brake (Sup) assembly	T 2-13-6	(P4), (L10)	—	
14	⑬ Main brake (Take up) assembly	T 2-13-6	(P5), (L11)	—	
15	⑭ Reel disk assembly (Sup)	T 2-13-7	—	—	
16	⑮ Reel disk assembly (Take up)	T 2-13-7	—	—	
17	⑯ Prism	T 2-13-7	(S2)	—	
18	⑰ Control plate	T 2-13-7	2(L12)	—	
19	⑱ Guide rail (Take up) assembly	T 2-13-8	4(S2)	10	Position alignment
20	⑲ Guide rail (Sup) assembly	T 2-13-8	(S2), 2(L13)	10	Position alignment
21	⑳ Base plate assembly	T 2-13-8	(S2), 2(L14)	—	
22	㉑ Ent. guide base assembly	T 2-13-9	(S2)	—	
23	㉒ Worm wheel 2	T 2-13-9	—	11	Phase alignment
24	㉓ Timing belt	T 2-13-9	—	—	
25	㉔ Center gear assembly	T 2-13-9	—	—	
26	㉕ Reel drive pulley assembly	T 2-13-10	(W1)	—	
27	㉖ Push plate	T 2-13-10	(W1)	—	
28	㉗ Clutch lock gear(2)	T 2-13-10	(W3)	—	
29	㉘ Clutch lock gear (1)	T 2-13-10	(P6)	—	
30	㉙ Tension control arm assembly	T 2-13-11	(L15)	12	Position alignment
31	㉚ Brake control arm assembly	T 2-13-11	(W1), (L16)	12	Position alignment
32	㉛ Charge arm assembly	T 2-13-11	(L17)	13	Position alignment
33	㉜ Connect gear 2	T 2-13-12	(S2)	—	(Phase alignment)
34	㉝ Connect gear 2	T 2-13-12	(S2)	—	(Phase alignment)
35	㉞ Rotary encoder assembly	T 2-13-13	2(S2)	14	Phase alignment
36	㉟ Main cam gear	T 2-13-13	(W1)	15	Phase alignment
37	㊱ Arm gear 1 assembly	T 2-13-13	Collar	15,16	Position alignment
38	㊲ Center arm assembly	T 2-13-13	(L18)	15	Position alignment
39	㊳ Sub cam gear	T 2-13-14	(2)	17	Phase alignment
40	㊴ Arm gear 2 assembly	T 2-13-14	—	17	Position alignment
41	㊵ Clutch lock lever assembly	T 2-13-14	(L19)	17,18	Position alignment
42	㊶ Capstan motor	T 2-13-15	(P7), Adjust nut	—	Vertical adjustment
43	㊷ Drum base deck	T 2-13-15	3(S2)	—	

Table 2-12-1

TOP VIEW

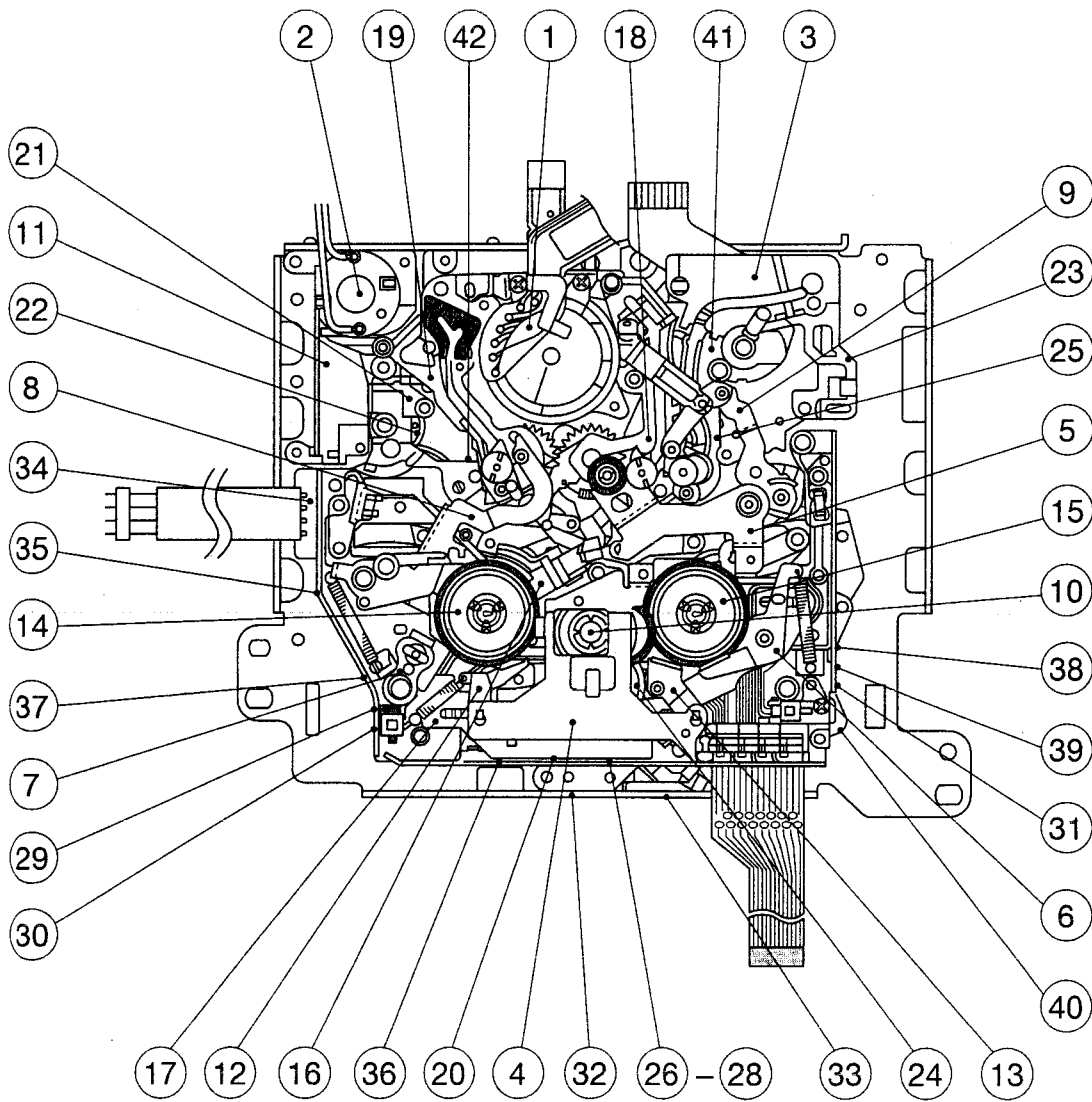


Fig. 2-12-1

2.13 DISASSEMBLY/ASSEMBLY

1. ① Cassette Housing Assembly/ ② Mechanism Assembly

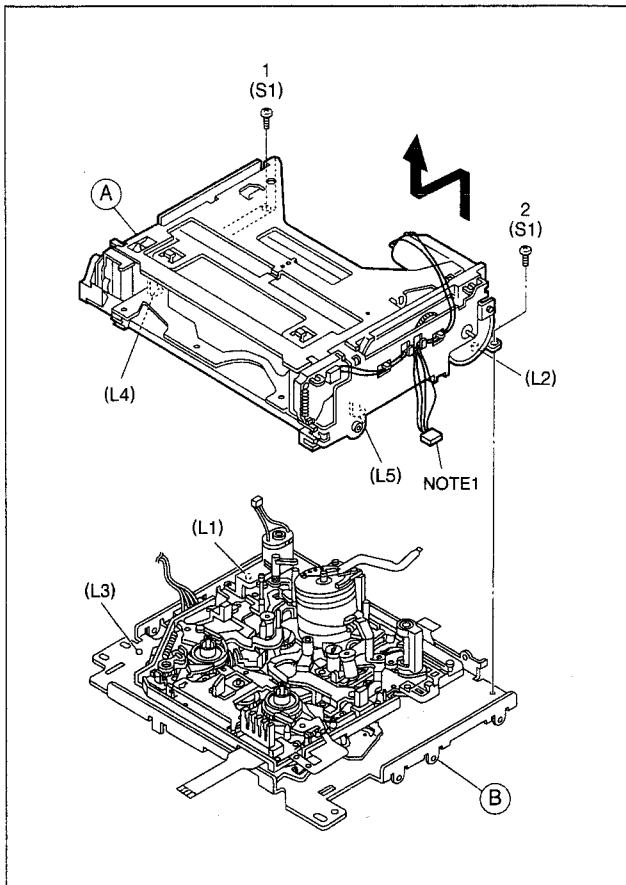


Fig. 2-13-1

2. ① Drum assembly / ② Motor bracket assembly

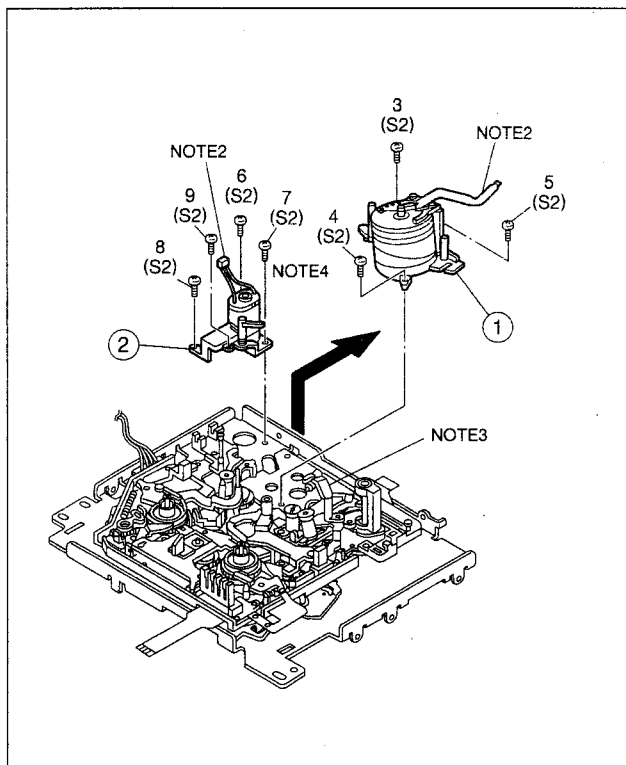


Fig. 2-13-2

<NOTE 1>: If the wires for the cassette housing motor are connected to the circuit board, remove them before disassembly.

<NOTE 2>: If wires are connected to the circuit board, remove them before disassembly.

<NOTE 3>: Be careful not to damage the drum assembly when removing it.

<NOTE 4>: The bracket (DV) may come in the way of removal of screw (7). Be sure to remove the bracket before proceeding to the screw removal.

3. ③ Middle Catcher Assembly/④ Reel Cover Assembly

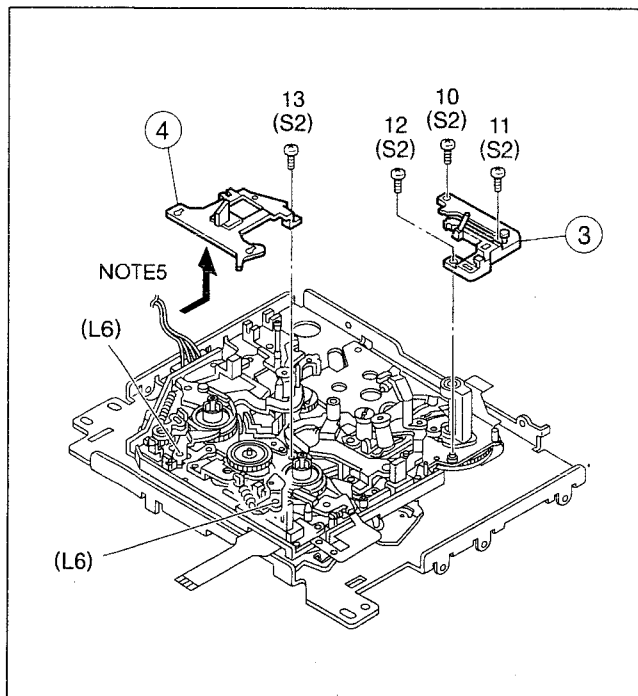


Fig. 2-13-3

<NOTE 5>: Once the reel cover assembly has been removed, the parts located below it tend to slip out easily: Be careful.

4. ⑤ Pinch Roller Arm Assembly/⑥ Sub Brake Assembly/
⑦ Band Arm Plate Assembly/⑧ Tension Arm Assembly

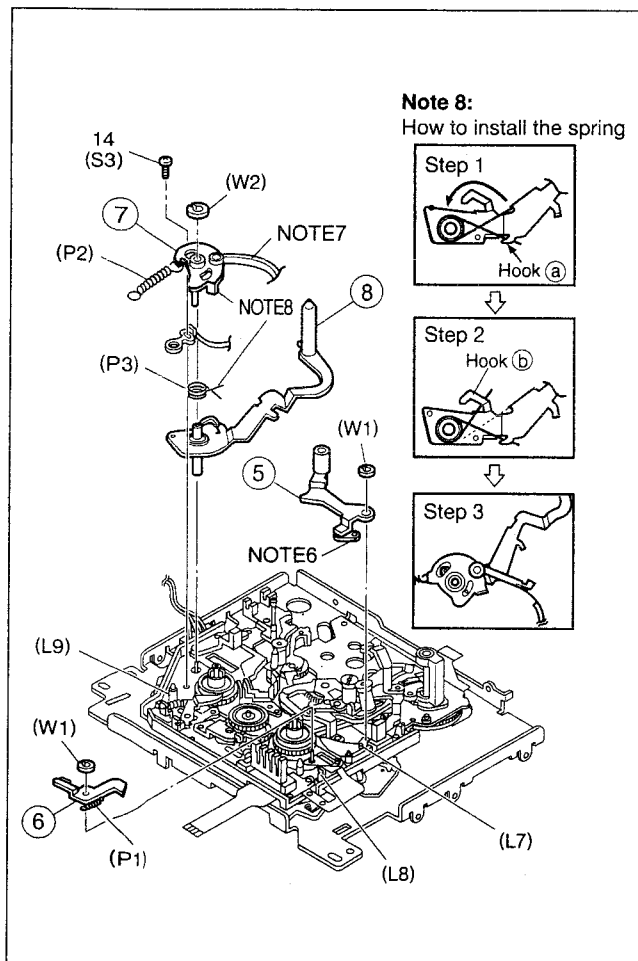


Fig. 2-13-4

<NOTE 6>: When attaching this part, fit it in the boss (L7) on the charge arm assembly.

<NOTE 7>: When attaching or removing this part, take care of the handling of the band section.

<NOTE 8>: After fitting the spring on the shaft, engage it with hook (a) first then with hook (b). After attaching it, set it to the positioning shown in "Step 3" and confirm that band arm plate assembly ⑦ can be rotated in the direction of the arrow as shown below.

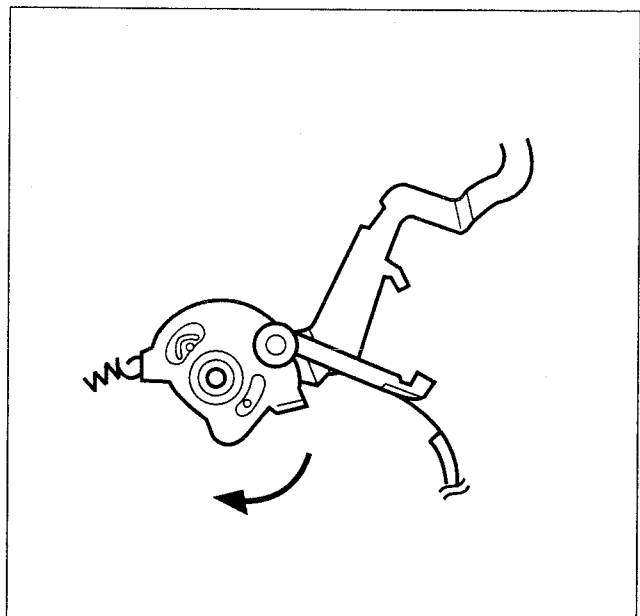


Fig. 2-13-4A

5. ⑨ EXIT Guide Arm Assembly/ ⑩ Swing Arm Assembly

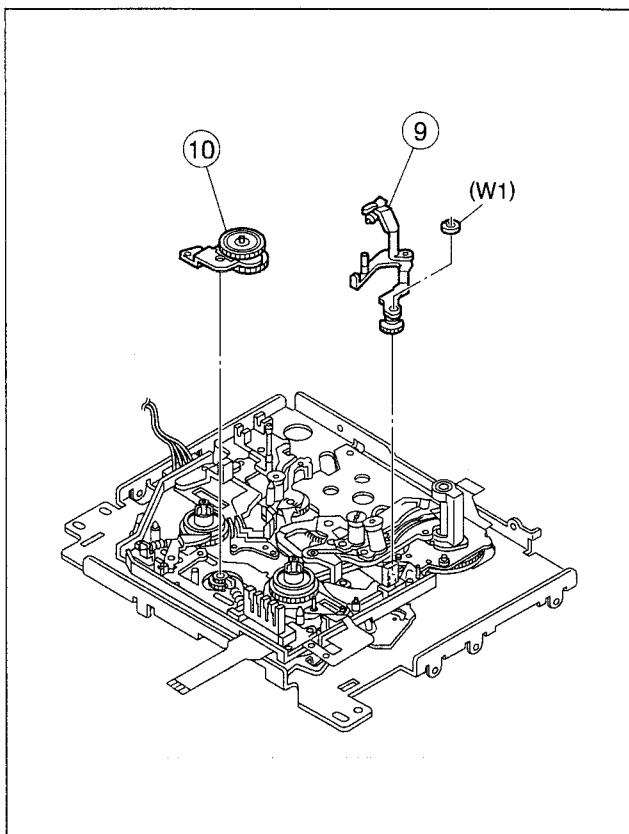


Fig. 2-13-5

6. ⑪ Sub Deck Assembly/ ⑫ Main Brake (SUP) Assembly/
⑬ Main Brake (TU) Assembly

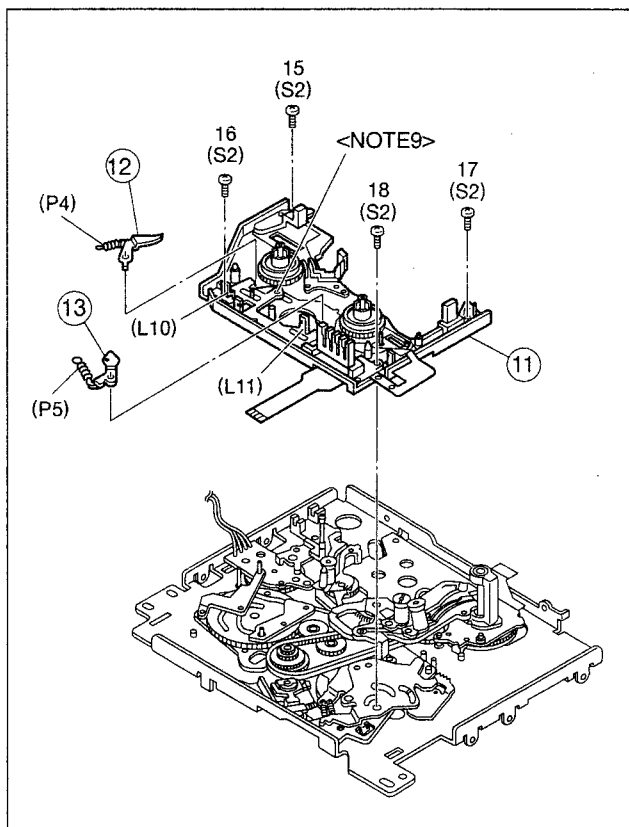


Fig. 2-13-6

<NOTE 9>: When attaching the sub deck assembly, make sure to adjust the phase of the control plate.

7. ⑭ Reel disk assembly (Sup) / ⑮ Reel disk assembly (Take up) / ⑯ Prism / ⑰ Control plate

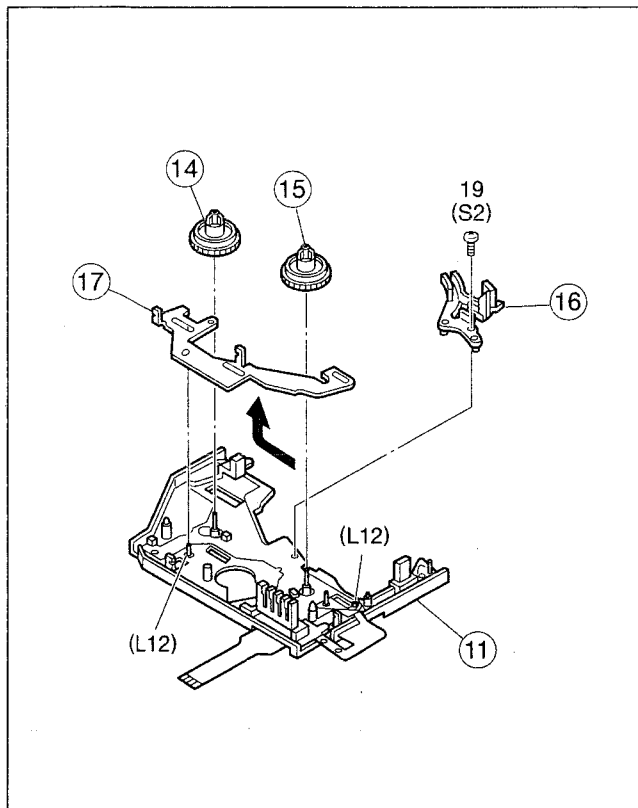


Fig. 2-13-7

8. ⑱ Guide rail (Take up) assembly / ⑲ Guide rail (Sup) assembly / ⑳ Base plate assembly

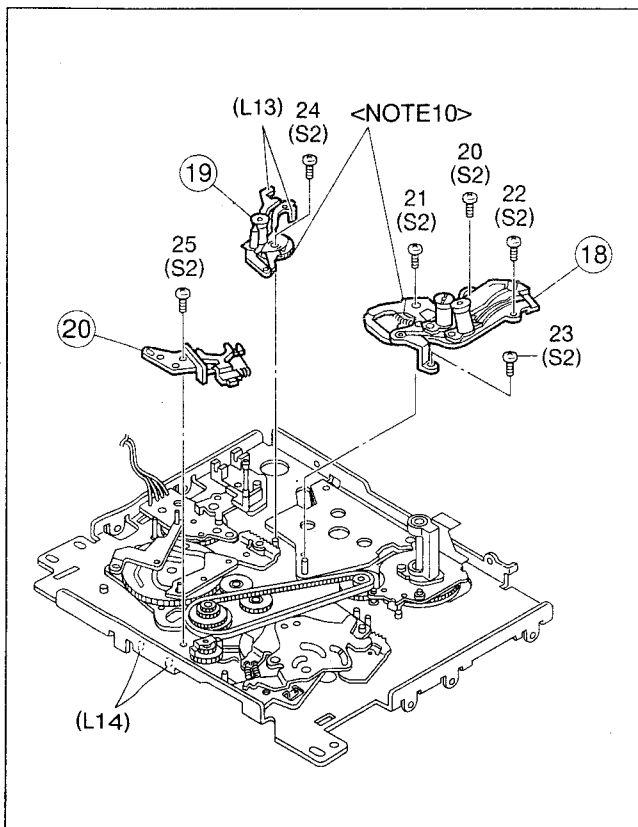


Fig. 2-13-8

<NOTE 10>: When attaching, set the alignment markings of the two gears so that the markings face opposite to each other.

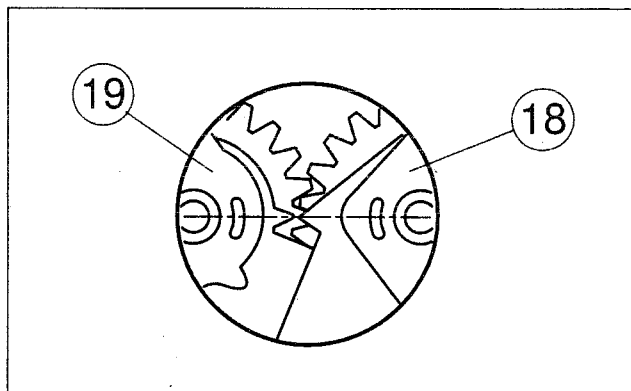


Fig. 2-13-8A

9. ②① Ent. guide base assembly / ②② Worm wheel 2 /
②③ Timing belt / ②④ Center gear assembly

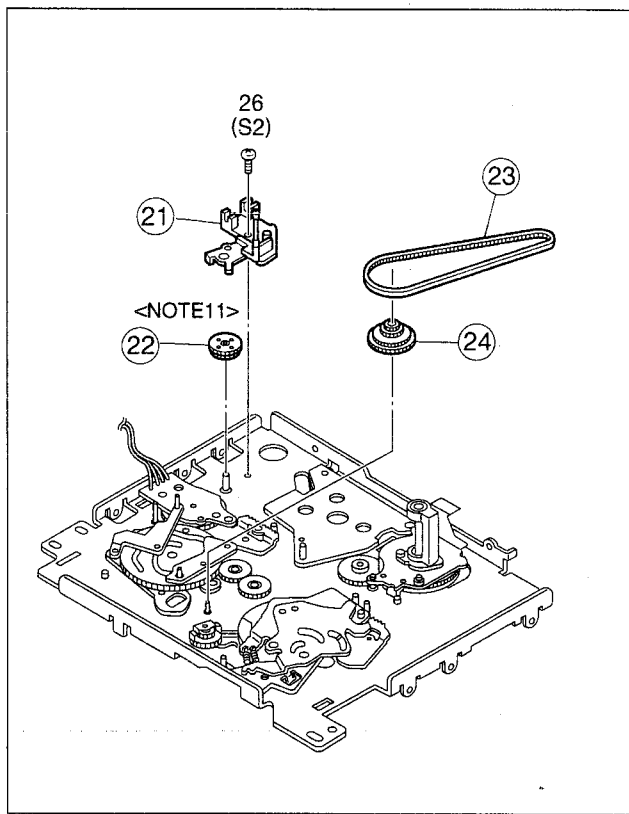


Fig. 2-13-9

<NOTE 11>: How to attach worm wheel 2 ②② .

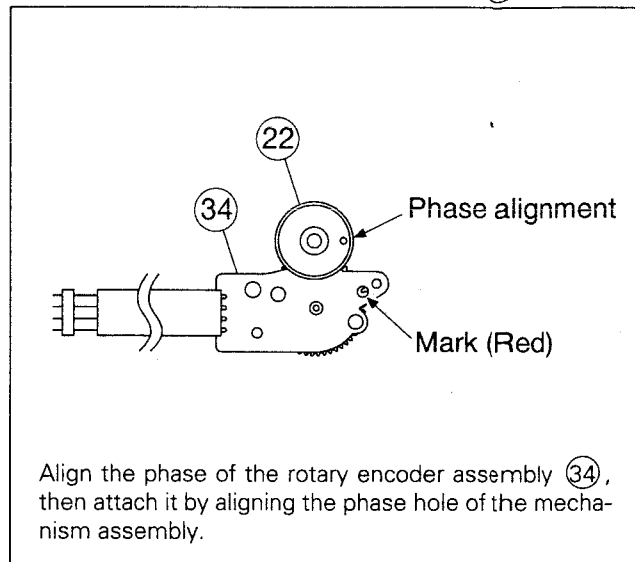


Fig. 2-13-9A

10. ②⑤ Reel drive pulley assembly / ②⑥ Push plate
②⑦ Clutch lock gear(2) / ②⑧ Clutch lock gear (1)

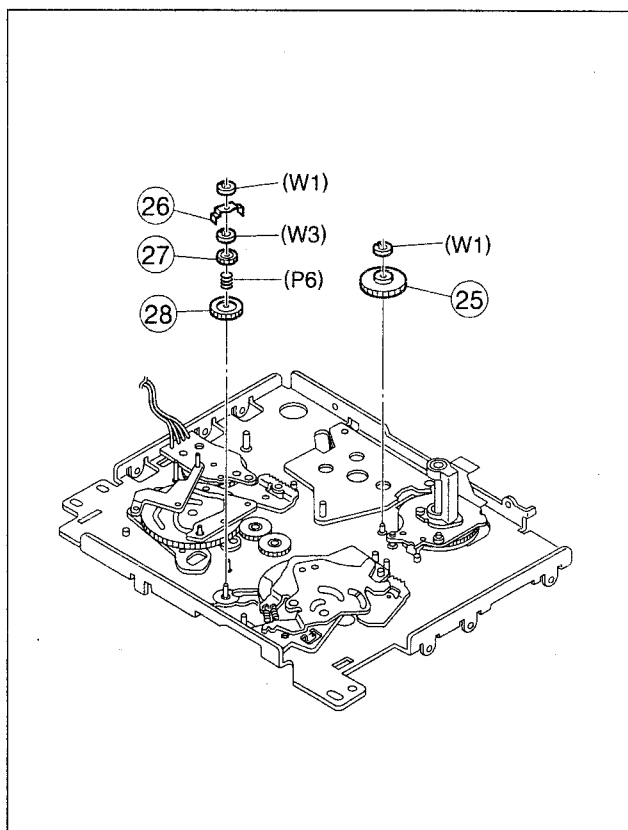


Fig. 2-13-10

11. ②⑨ Tension control arm assembly/ ③⑩ Brake control arm assembly / ③⑪ Charge arm assembly

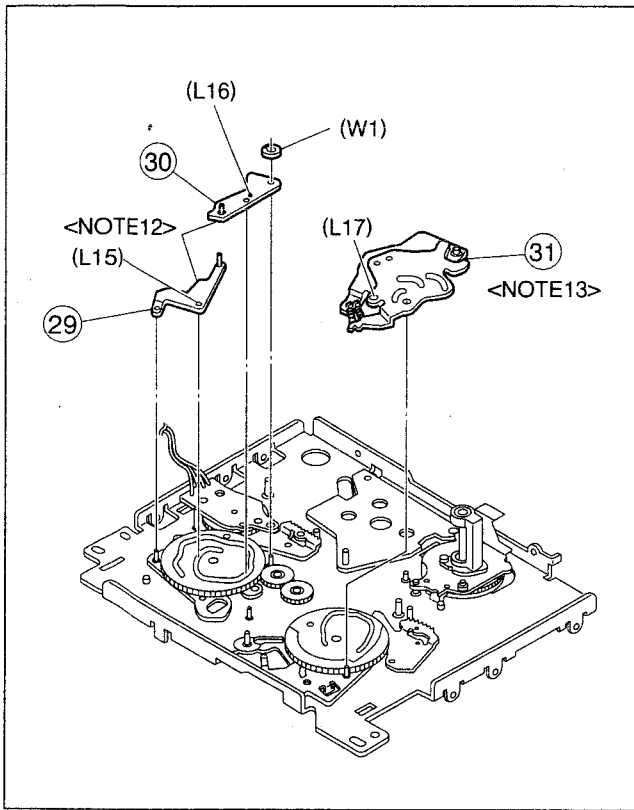


Fig. 2-13-11

12. ③② Connect gear 2 / ③③ Connect gear 2

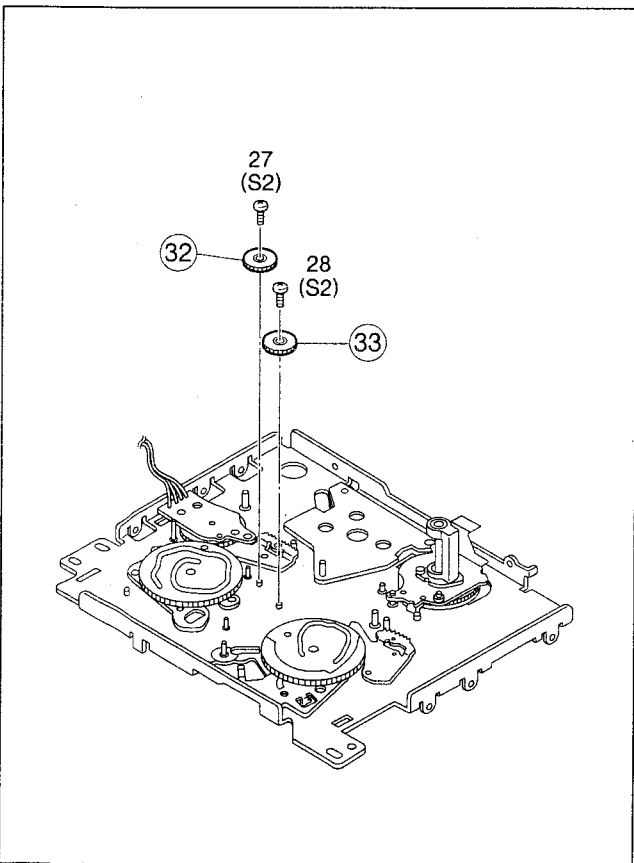


Fig. 2-13-12

<NOTE 12>: How to attach the tension control arm assembly ②⑨ / Brake control arm assembly ③⑩ .

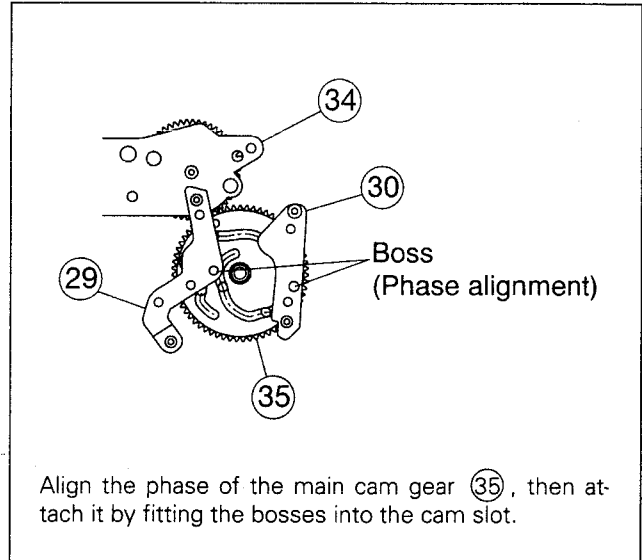


Fig. 2-13-11A

<NOTE 13>: How to attach the charge arm assembly ③⑪ .

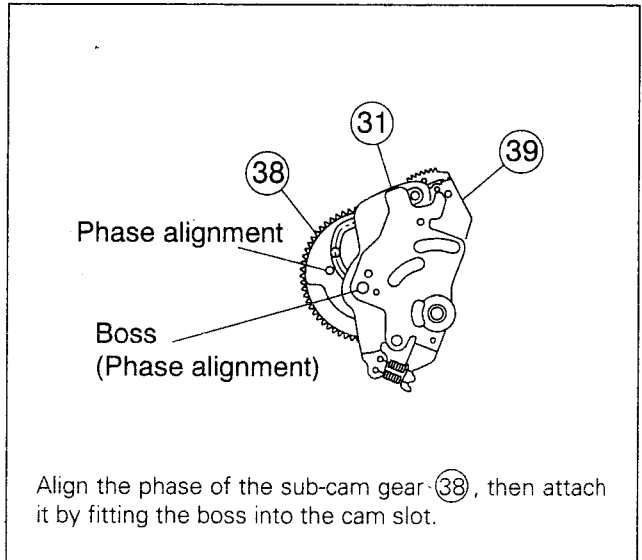


Fig. 2-13-11B

13. ③④ Rotary encoder assembly / ③⑤ Main cam gear /
③⑥ Arm gear 1 assembly / ③⑦ Center arm assembly

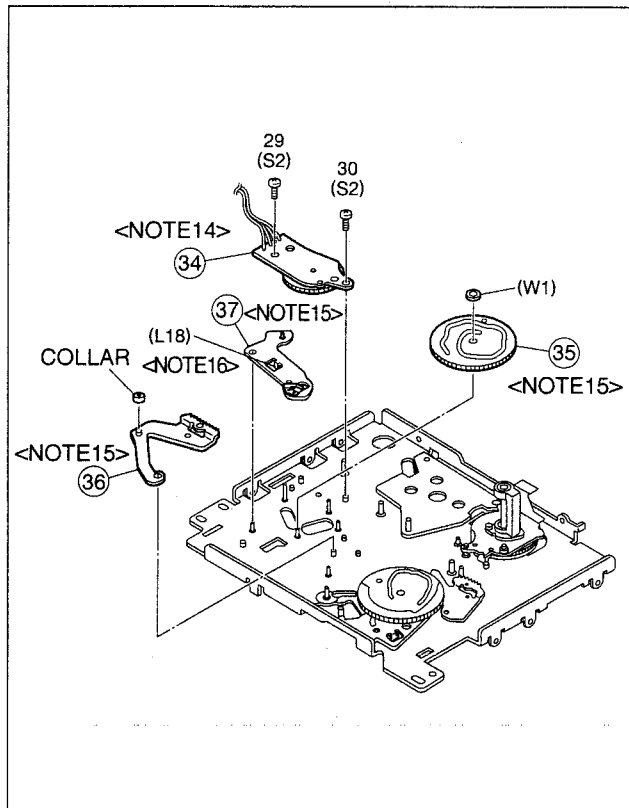


Fig. 2-13-13

<NOTE 14>: How to attach the rotary encoder assembly ③④.

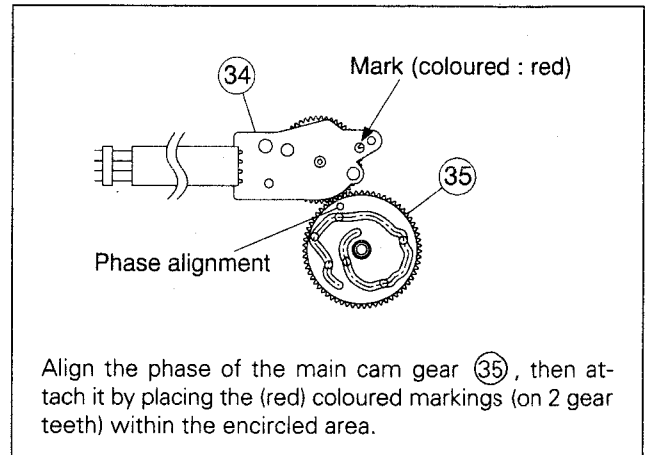


Fig. 2-13-13A

<NOTE 15>: How to attach the main cam gear ③⑤.

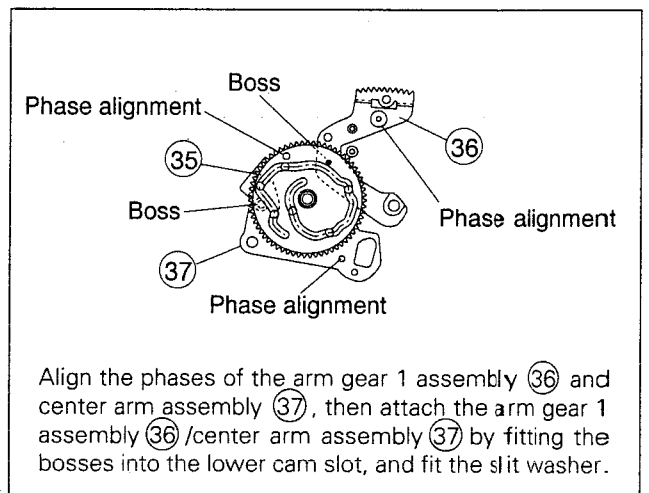


Fig. 2-13-13B

<NOTE 16>: How to remove the center arm assembly ③⑦
The center arm assembly is located behind the mechanism assembly when the phase is aligned correctly. The center arm assembly can be removed by displacing it in the direction of the arrow.

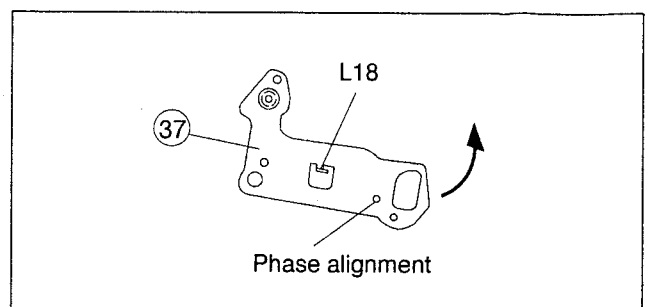


Fig. 2-13-13C

14. ③⑧ Sub cam gear / ③⑨ Arm gear 2 assembly /
④⑩ Clutch lock lever assembly

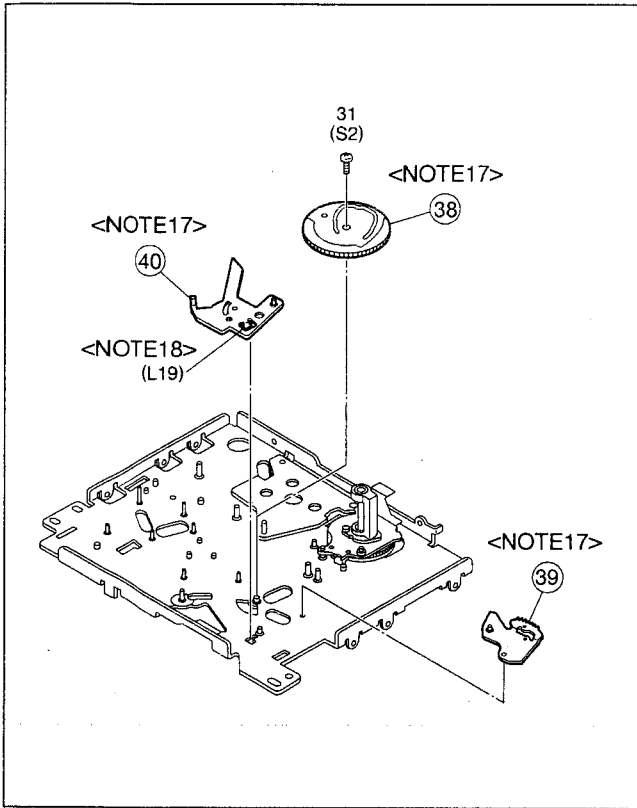


Fig. 2-13-14

15. ④① Capstan motor / ④② Drum base deck

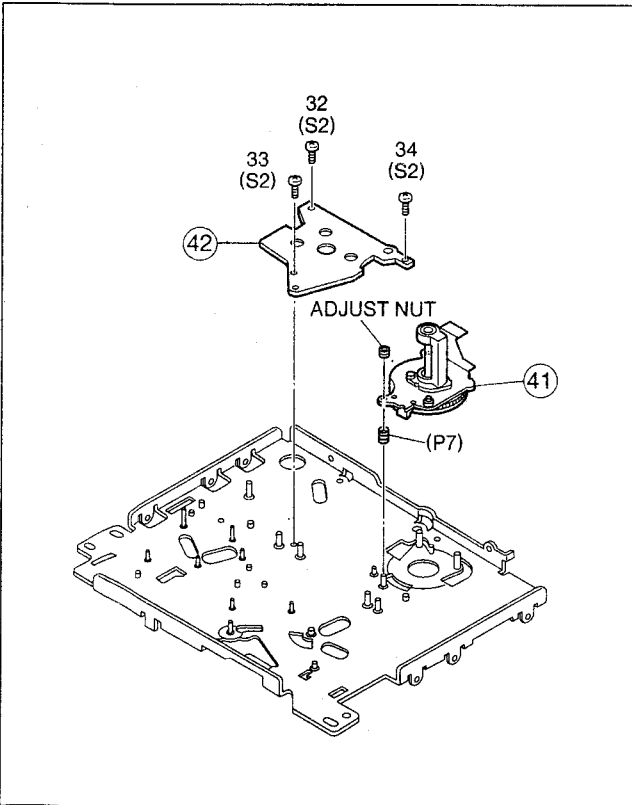


Fig. 2-13-15

<NOTE 17>: How to attach the sub cam gear ③⑧ .

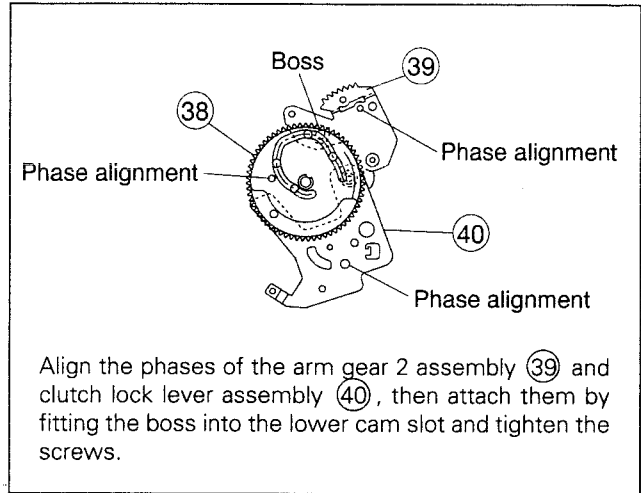


Fig. 2-13-14A

<NOTE 18>: How to remove the clutch lock lever assembly ④⑩
L19 is located behind the mechanism assembly when the phase is aligned correctly. The clutch lock lever assembly can be removed by displacing it in the direction of the arrow.

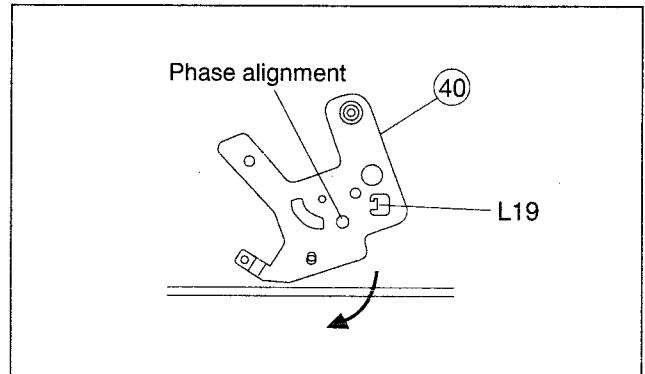


Fig. 2-13-14B

[illegible]

2-33

2.15 MECHANISM DISASSEMBLY/ASSEMBLY SHEET

Screw Management Table	Fig. No.	A		1			2				3			4	7	11			
	No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Type	S1	S1	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S3	S2	S2	S2	S2
	Attachin																		
	Ref. Fig.	2-13-1		2-13-2							2-13-3			2-13-4		2-13-6			

(A) Cassette housing assembly S1×2, L1-L5		(1) Drum assembly S2×3	(4) Reel cover assembly S2, L6×2
(2) Motor bracket assembly S2×4		(5) Pinch roller arm assembly W1, L7	(3) Middle catcher assembly S2×3
(6) Sub brake assembly P1, W1, L8		(17) Control plate L12×2	(18) Guide rail (Take up) assembly S2×4
(19) Guide rail (Sup) assembly S2, L13×2		(24) Center gear assembly 	(25) Reel drive pulley assembly W1
(26) Push plate W1	(27) Clutch lock gear (2) W3	(28) Clutch lock gear (1) P6	(29) Tension control arm assembly L15
(30) Brake control arm assembly W1, L16		(35) Main cam gear W1	(36) Arm gear 1 assembly COLLAR
(37) Center arm assembly L18		(38) Sub cam gear S2	

Fig. 2-15-1A

①⑥	①⑧				①⑨	②⑦	②①	③②	③③	③④		③⑧	④②		
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2
2-13-7	2-13-8							2-13-9	2-13-12	2-13-13	2-13-14		2-13-15		

⑦ Band arm plate assembly S3, P2, L9, W2	⑪ Sub deck assembly S2x4		⑫ Main Brake(Sup) assembly P4, L10	⑬ Main Brake(Take up) assembly P5, L11
⑧ Tension arm assembly P3			⑭ Reel disk assembly (Sup) P4, L10	⑮ Reel disk assembly (Take up) P5, L11
⑨ EXIT guide arm assembly W1	⑩ Swing arm assembly W1		⑯ Prism S2	
⑳ Base plate assembly S2, L14x2	㉑ Ent. guide base assembly S2	㉒ Worm wheel 2 22	㉓ Timing belt 23	
㉑ Charge arm assembly L17	㉒ Connect gear 2 S2	㉓ Connect gear 2 S2	㉔ Rotally encoder assembly S2x2	
㉑ Arm gear 2 assembly L19	㉑ Clutch lock lever assembly L19	㉑ Capstan motor ADJUST NUT, P7	㉑ Drum base deck S2x3	

Fig. 2-15-1B

2.16 MECHANISM PHASE CHECK/ADJUSTMENT

See Fig. 2-16-1.

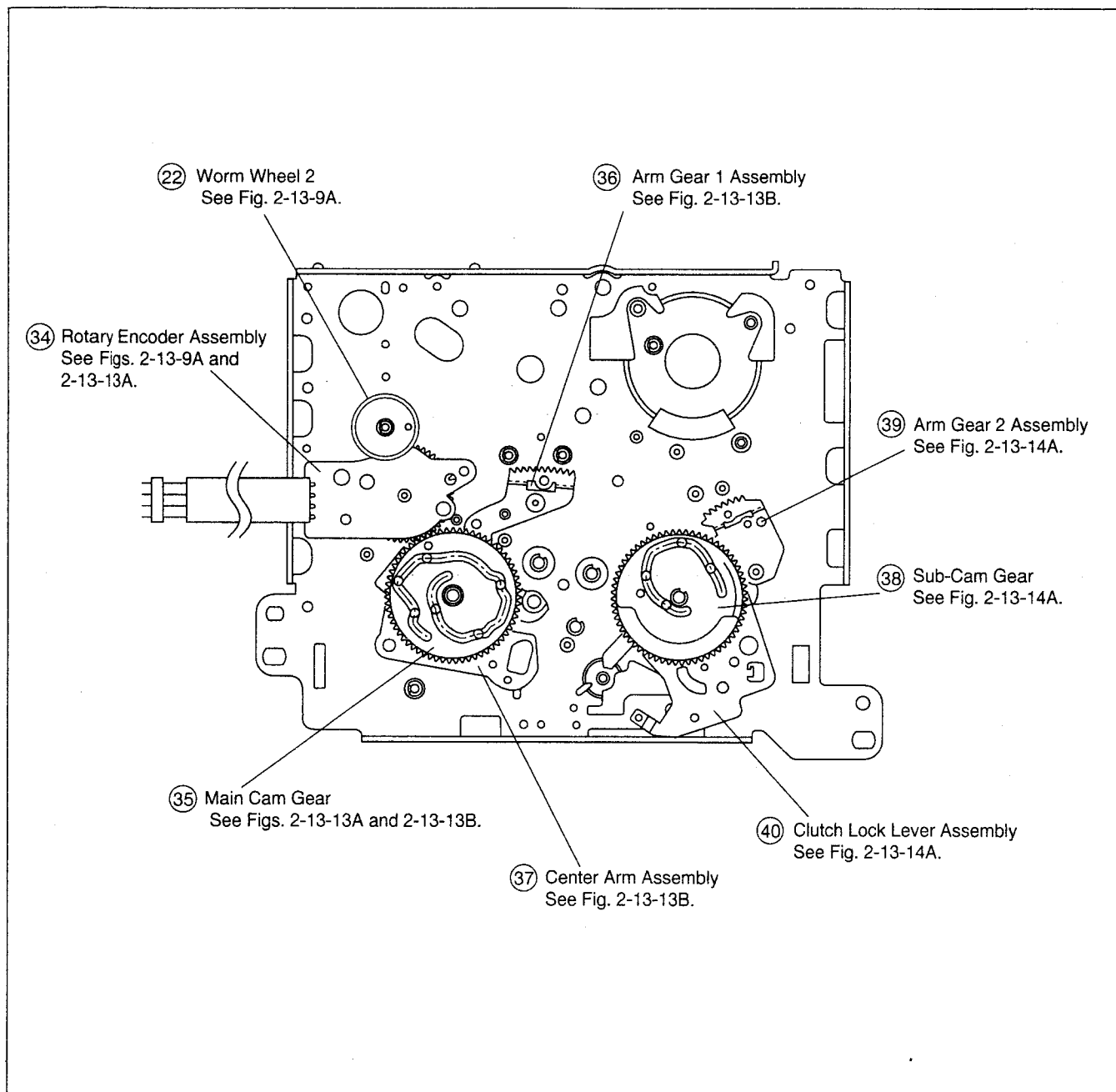


Fig. 2-16-1

2.17 POSITIONING THE TENSION POLE

See Fig. 2-17-1.

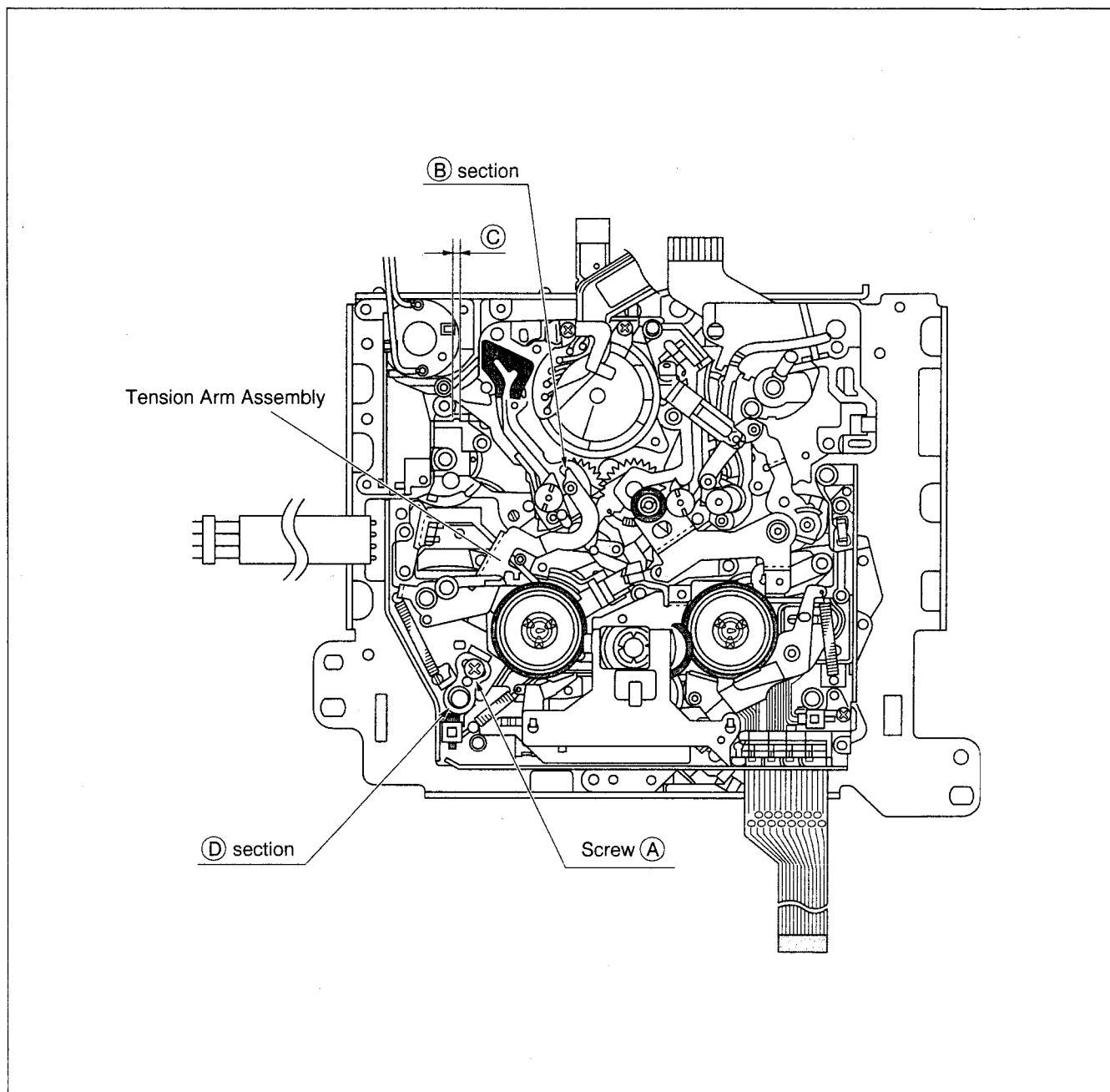


Fig. 2-17-1

Adjustment Method

NOTE: Remove the cassette housing assembly in advance.

1. Set the mechanism mode to the PLAY mode. (See pages 2-20 and 21.)
2. Loosen a screw (A).
3. Check the location of the tip (section (B)) of the tension arm assembly to make sure that it is within area (C).
If it is located outside, turn part (D) to bring it within the specified area.
4. Tighten the screw (A).

Note : Tightening torque for the screw(A): 0.06 N·m (0.6 kgfcm)

2.18 COMPATIBILITY AND ERROR RATE ADJUSTMENTS

2.18.1 Preparation

Before disassembly and adjustment, back up the data stored in the EEPROM (IC1003 on the DV main board) using the Service Support Software.

Table 2-18-1 shows the important service points for the compatibility and error rate adjustments.

Adjustment Item Service Point	Linearity Adjustment	PB Switching Point Adjustment	Error Rate Adjustment
Drum replacement	Required NOTE 1	Required	Required
Transport part replacement	Required NOTE 1	Not	Check
Transport part (drum) repair	Required NOTE 1	Not	Check
IC9001 (PRE/REC amp on DV PRE/REC board) replacement	Not	Not	Check
IC3501 (PB. EQ on DV PRE/REC board) replacement	Not	Not	Required
DV main board replacement NOTE 2	Not	Required	Required

Table 2-18-1

NOTE 1: The linearity adjustment is required only after servicing or replacing the drum or the take up/supply guide rail.

NOTE 2: After replacing the DV main board, write the original data in the EEPROM of the new board. If write communication is not possible, mount the original EEPROM on the new board.

When adjustments of more than one item are required, use the following order for the adjustments.

2.18.3 Linearity Adjustment



2.18.4 PB Switching Point Adjustment



2.18.5 Error Rate Adjustment

2.18.2 Adjustment

The actual adjustment requires the following preparation.

1. Tools required for adjustment

1	Alignment tape MC-2	2	Guide driver YTU94085
3	Jig connector cable PTU94018A	4	Service support software PTU94016-1

Fig. 2-18-1

2. Procedure

1. Take out the 7 screws (1 to 7), then remove the top cover.
2. Connect the jig connector cable to CN1004 on the DV main board.

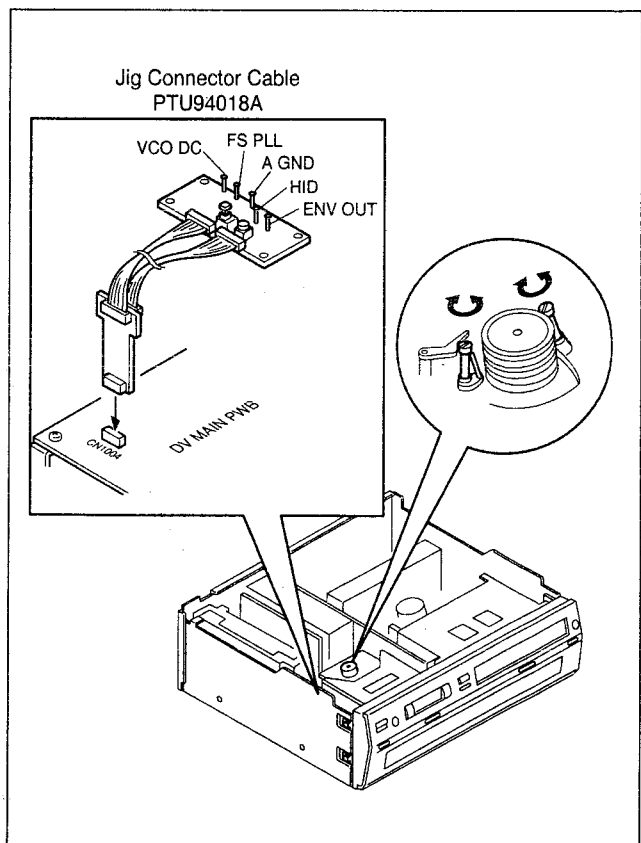


Fig. 2-18-2

2.18.3 Linearity adjustment

The following flowchart shows the linearity check/adjustment procedure.

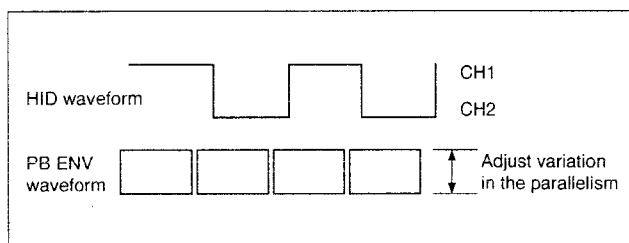
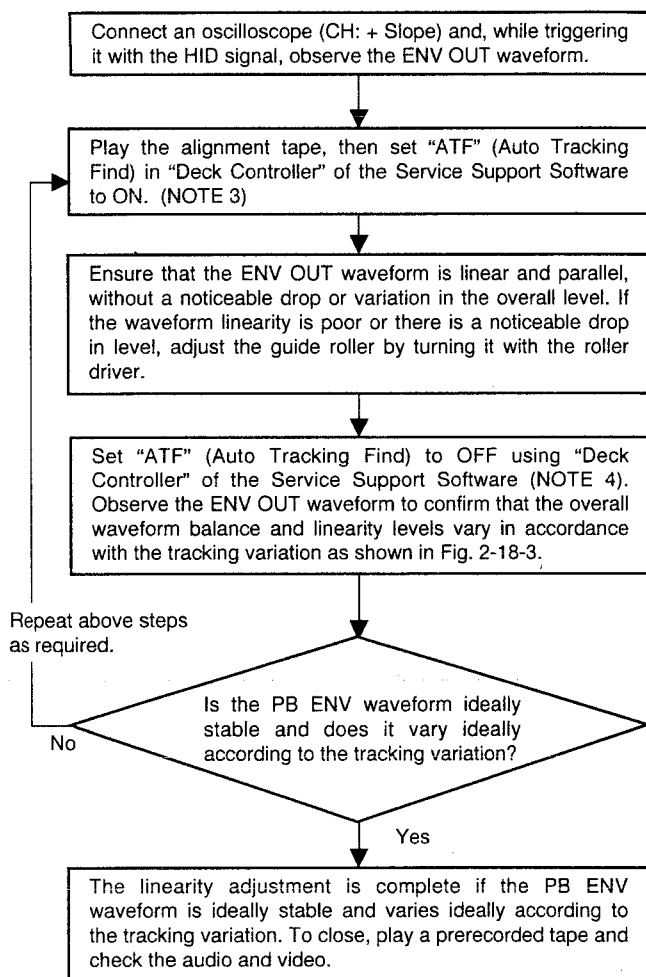


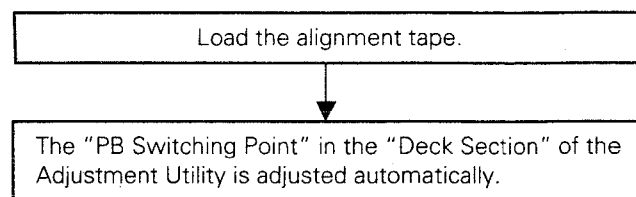
Fig. 2-18-3 PB ENV Waveform

NOTE 3: The VHS section has an A/C head, and the first tracking position can be locked using the CTL pulse and drum FF when AT is off. Therefore, the linearity of the VHS section can usually be adjusted with AT off. However, this adjustment method is not available with the DV section, which does not have the A/C head. If ATF is turned off, the DV section performs tracking only of the speed system. Therefore, as time passes, the servo will be lost and the linearity adjustment will become difficult.

NOTE 4: Since the speed servo function is active when ATF is off, there will be no problem even if the DVC ATF function is off, provided that it is for a few minutes.

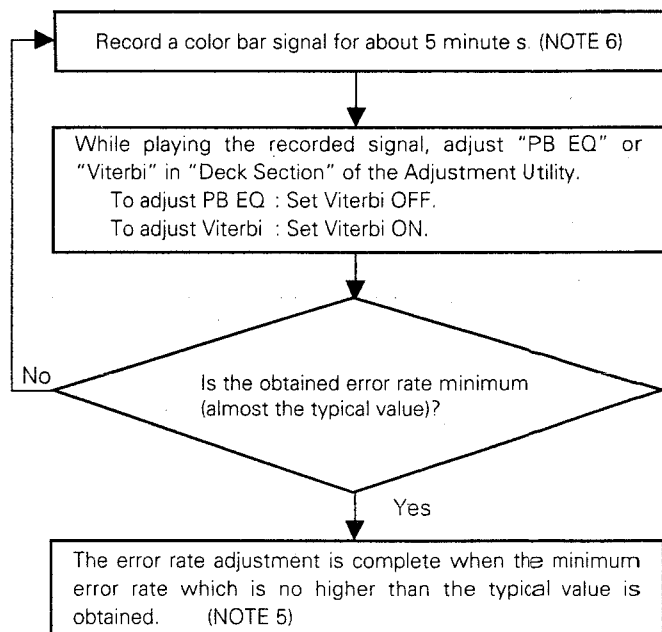
2.18.4 PB switching point adjustment

The following flowchart shows the PB switching point adjustment procedure.



2.18.5 Error rate adjustment

The following flowchart shows the error rate adjustment procedure.



NOTE 5: The "typical value" refers to the following:

CH1 or CH2: < 1500. Total: < 3000; with Viterbi OFF. Inter-channel difference: < 10 times between CH1 and CH2.

NOTE 6: It is desirable to use a brand-new tape or an unused section of tape. This is to assure the adjustment reliability because using a damaged tape increases the error rate.

2.18.6 Error rate measuring method

It is not necessary to use the error rate jig (YTJ93083) or a frequency counter. The Service Support Software displays the error rates of video CH1, CH2 and totals. When measuring the error rate of a channel, be sure to total the values of the video and the audio errors.

2.19 TAPE EJECTION

If a loaded cassette tape cannot be ejected due to a failure in the electrical circuitry, take the cassette tape out using the following procedure.

However, this method consists of a forced driving of the loading motor. Therefore, the following description assumes that there is no trouble in the mechanism operations.

1. Unplug the power plug from the power outlet, then remove the top cover.
2. Apply 3 V DC to the electrodes (Red wire: + pole. Brown wire: - pole) on the upper part of the loading motor to perform the unloading operation so that the pole base assemblies are returned on the inner side of the tape. At this time, the exit guide arm assembly should return toward the drum assembly and the mechanism should enter the C-IN mode. As the tape is left without winding, be careful not to damage the tape or leave grease on it.

3. If the tape is slack, wind it up by turning the shaft on the topside of the capstan motor in the direction of the arrow using a pointed tool (chip IC replacement jig). This operation may be difficult because the shaft is located below the housing motor of the cassette housing assembly. Be careful not to damage parts during it.
4. After confirming that the tape is fully wound up, take out the cassette tape by turning the gear of the cassette housing assembly in the direction of the arrow.

NOTE: After ejecting the tape, check that grease or similar foreign material is not attached to the wound tape. Also perform similar checking for the mechanism assembly, particularly the tape transport system.

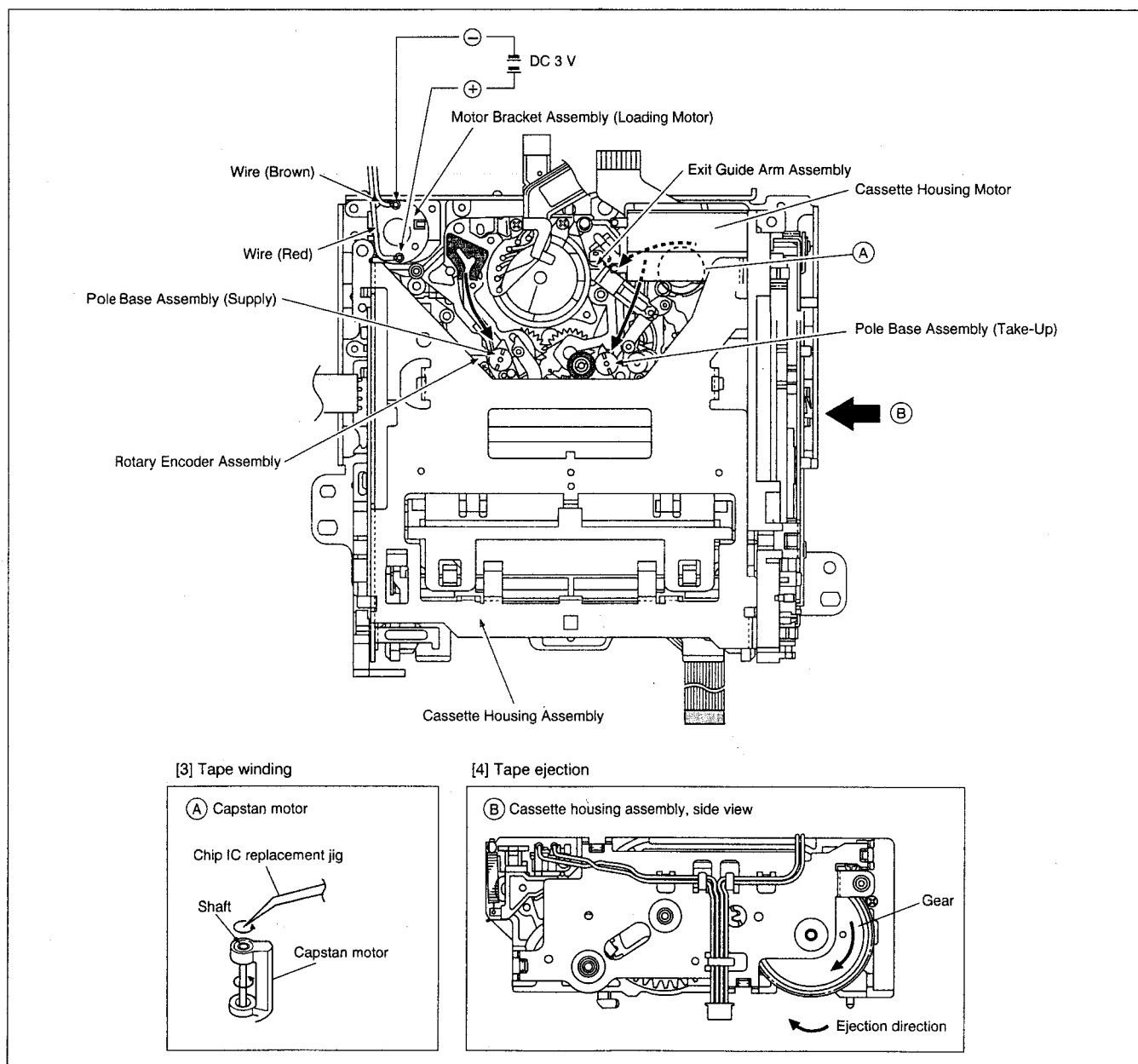


Fig. 2-19-1

SECTION 3 ELECTRICAL ADJUSTMENT (VHS)

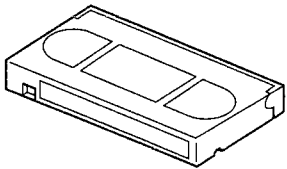
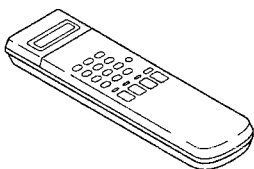
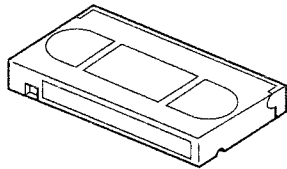
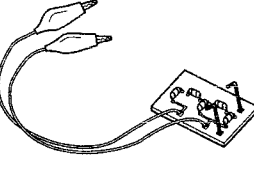
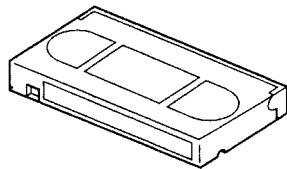
3.1 PRECAUTION

Electrical adjustment are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also do not attempt these adjustments unless the proper equipments is available.

3.1.1 Required test equipment

- ① Colour television or monitor
- ② Oscilloscope: wide-band, dual-trace, triggered delayed sweep
- ③ Frequency counter
- ④ Signal generator: RF/IF sweep/marker
- ⑤ Signal generator: PAL colour bar, staircase
- ⑥ Recording tape (VHS tape/S-VHS tape)
- ⑦ Digit-key remote controller(provided)

3.1.2 Required adjustment tools

Alignment tape (SP, staircase) MHPE	Jig RCU PTU94023B
	
Alignment tape (S-VHS, SP/LP, colour bar) MH-2H	LPF PTU93006
	
Alignment tape (SP, staircase) MHP	
	

3.1.3 Colour bar signal, colour bar pattern

● PAL colour bar signal

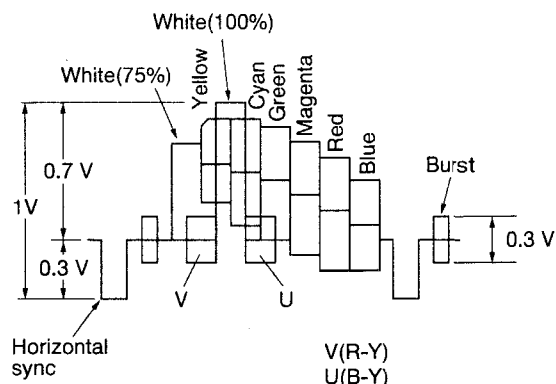


Fig.3-1-1 PAL colour bar signal waveform

● PAL colour bar pattern

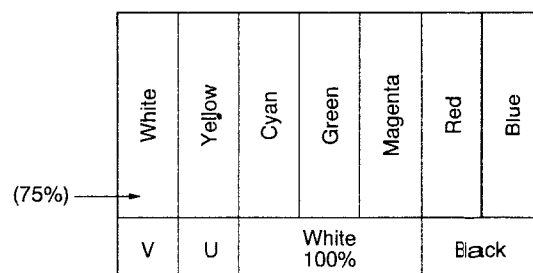


Fig.3-1-2 PAL colour bar pattern

Note:

The system control circuit of this model has an automatic recognition about the ON-OFF control of the **DOCTOR SYSTEM**.

3.2 SERVO CIRCUIT

Notes: • Unless otherwise specified, all measurement points and adjustment parts are located on the MAIN BOARD.

3.2.1 PB switching point

Signal	• Alignment tape [MHPE], Stairstep • Alignment tape [MHP], Stairstep
Mode	• PB • TBC : OFF
Equipment	• Oscilloscope
Measurement point	• VIDEO OUT TERMINAL
Trigger slope (-)	• TP111(D.FF)
Adjustment tool	• Jig RCU [PTU94023B]
Specification	• $8.0 \pm 0.5H$ [MHPE] • $7.5 \pm 0.5H$ [MHP]

- (1) Playback the stairstep signal of the alignment tape [MHPE].
- (2) Connect an oscilloscope to VIDEO OUT TERMINAL and TP111 (negative slope), and then observe VIDEO OUT TERMINAL.
- (3) Adjust by transmitting the data code "51" or "52" with the Jig RCU so that the switching point becomes $8.0 \pm 0.5H$ from V.sync.
- (4) Depress the STOP button.
- (5) Playback the stairstep signal of the alignment tape [MHP].
- (6) Adjust by transmitting the data code "51" or "52" with the Jig RCU so that the switching point becomes $7.5 \pm 0.5H$ from V.sync.
- (7) Depress the STOP button.

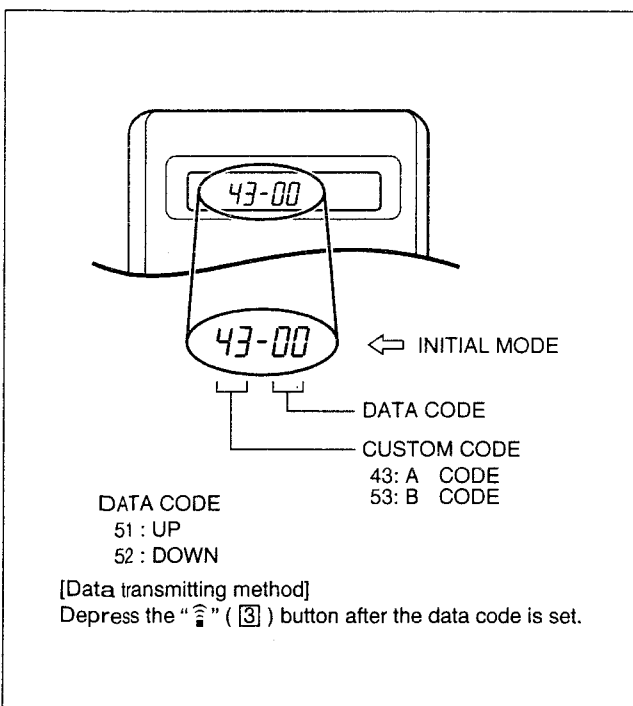


Fig. 3-2-1 Jig RCU

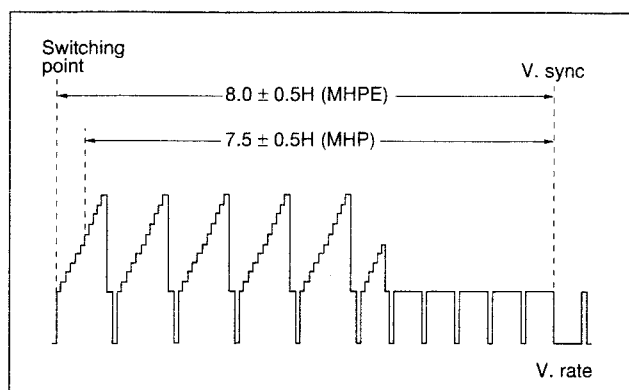


Fig. 3-2-2 PB switching point

3.2.2 Slow tracking preset

Signal	• Tuner or colour bar
Mode	• SP/LP : REC → PB(SLOW) • S-VHS
Equipment	• TV-Monitor
Adjustment tool	• Jig RCU [PTU94023B]
Specification	• Minimum noise

- (1) Record a colour bar signal in the SP mode.
- (2) Playback the recorded signal on the FWD slow mode.
- (3) Set the tracking control to the centre position by simultaneously pressing the CH "+" and "-" buttons.
- (4) Observe the display on the TV monitor and adjust for optimum noise condition (best tracking) by transmitting the data code "72" or "71" with the Jig RCU.
- (5) Depress the STOP button.
- (6) Confirm that the bar noise is not visible on the TV monitor in the slow mode.
- (7) Repeat steps (2) to (6) in the REV slow mode.
- (8) Repeat steps (1) to (7) in the LP mode.

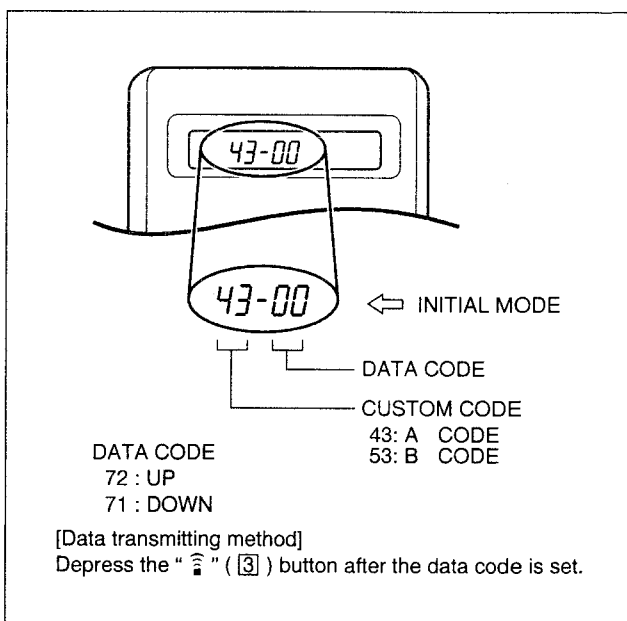


Fig. 3-2-3 Jig RCU

3.3 VIDEO CIRCUIT

Notes: • Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.

- VIDEO circuit adjustments are performed by the EVR system by use of the presetting unit and digit-key remote controller.
- S-INPUT means Y/C separated video signal in the chart.
- Unless otherwise specified, set the VCR to the following mode.

B.E.S.T	OFF
PICTURE CONTROL	NORM
DIGITAL TBC/NR	ON

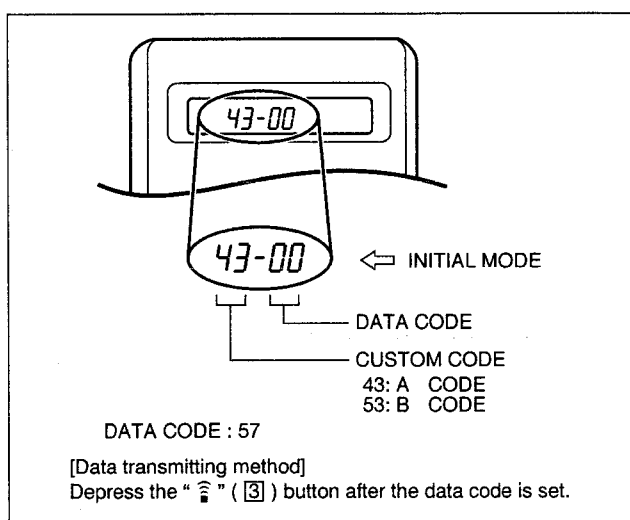


Fig. 3-3-1 Jig RCU

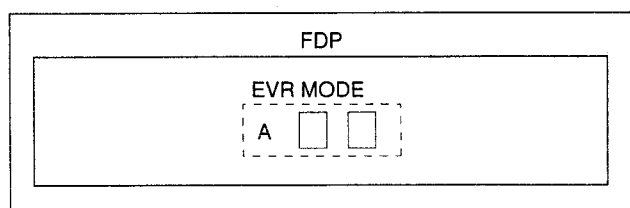


Fig. 3-3-2 EVR mode

3.3.1 EE Y level

Signal	• Colour bar
Mode	• EE
Equipment	• Oscilloscope
Measurement point	• Y OUT TERMINAL (75 ohm TERMINATION)
Adjustment tool	• Jig RCU [PTU94023B] • Digit-key remote controller
EVR mode	• A : 11
Specification	• 1.00 ± 0.03 Vp-p (terminated)

- (1) Connect an oscilloscope to Y OUT TERMINAL.
- (2) Set the EVR mode by transmitting a data code "57" with the Jig RCU.
- (3) Set "A : 11" by twice pressing 1 button of the remote controller.

- (4) Adjust the CH "+" or "-" buttons for 1.00 ± 0.03 Vp-p. (See Fig. 3-3-3.)
- (5) Set the normal VCR mode by transmitting the data code "57" with the Jig RCU again so adjustment data is memorized.

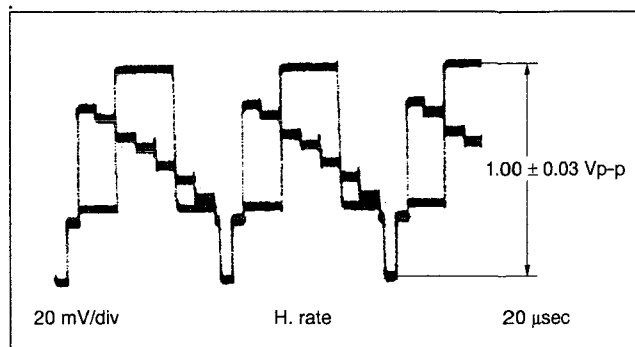


Fig. 3-3-3 EE Y level

3.3.2 SP/EP REC colour level

Signal	• Alignment tape [MH-2H] • Colour bar
Mode	• PB • REC → PB : SP/LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• PB COLOUR
Trigger slope (-)	• TP111 (D.FF)
Adjustment tool	• Jig RCU [PTU94023B] • Digit-key remote controller • LPF fixture [PTU93006]
EVR mode	• A : 2
Specification	• "B" × $150 \pm 5\%$: SP • "B" × $110 \pm 5\%$: LF

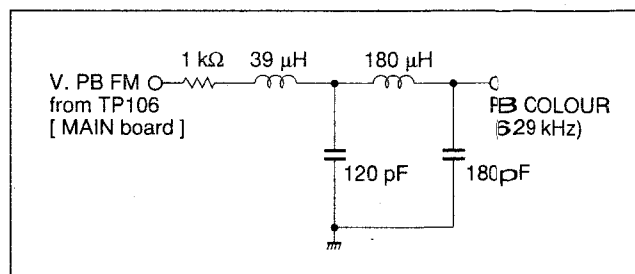


Fig. 3-3-4 LPF

- (1) Connect an oscilloscope to PB COLOUR of a LPF (refer to Fig. 3-3-4) and TP111 (negative slope) on the MAIN board.
- (2) Playback the SP colour bar signal of the MH-2H alignment tape.
- (3) Adjust by pressing the CH "+" or "-" buttons of the Front panel for maximum level of the color waveform and make a note of the higher colour level "B".
- (4) Press the STOP/EJECT button and eject the MH-2H alignment tape.
- (5) Set the EVR mode by transmitting a data code "57" with the Jig RCU.

- (6) Set "A : 2" by pressing 2 button of the remote controller.
- (7) Before recording, adjust the CH "+" or "-" buttons of the remote controller so that the higher level channel becomes $150 \pm 5\%$: SP ($110 \pm 5\%$: LP) of the note "B" level during playback as shown in Fig. 3-3-5.
- (8) Record a colour bar signal in the SP (LP) mode, and playback the recorded colour bar signal.
- (9) Set the normal VCR mode by transmitting the data code "57" with the Jig RCU again so adjustment data is memorized.

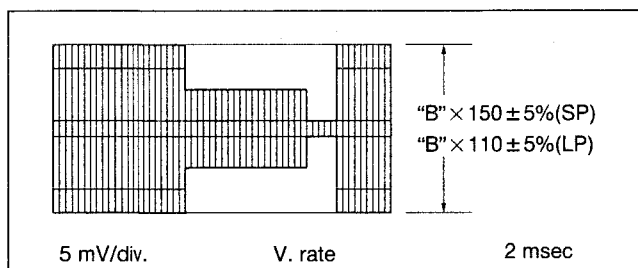


Fig. 3-3-5 REC colour level

3.3.3 PB Y level (S-VHS/VHS)

Signal	• Colour bar
Mode	• REC → PB : SP • S-VHS/VHS
Equipment	• Oscilloscope
Measurement point	• Y OUT TERMINAL (75 ohm TERMINATION)
Adjustment tool	• Jig RCU [PTU94023B] • Digit-key remote controller
EVR mode	• A : 11
Specification	• 1.00 ± 0.03 Vp-p (terminated)

- (1) Connect an oscilloscope to Y OUT TERMINAL.
- (2) Set the EVR mode by transmitting a data code "57" with the Jig RCU.
- (3) Set "A : 11" by twice pressing 1 button of the remote controller.
- (4) Record a colour bar signal in the S-VHS mode, and playback the recorded colour bar signal.
- (5) Adjust the CH "+" or "-" buttons for 1.00 ± 0.03 Vp-p as shown in Fig. 3-3-6.
- (6) Set the normal VCR mode by transmitting the data code "57" with the Jig RCU again so adjustment data is memorized.
- (7) Repeat steps (1) to (6) in the VHS mode.

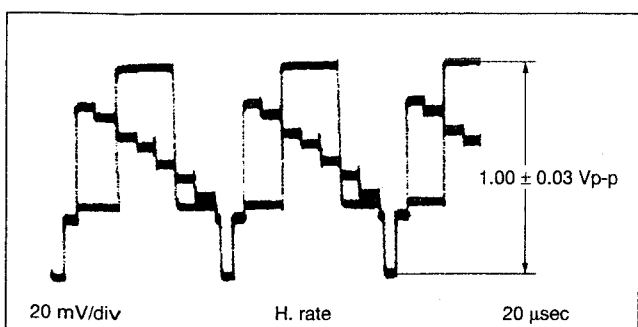


Fig. 3-3-6 PB Y level

3.3.4 S-VHS VIDEO EQ

Signal	• S INPUT • Video sweep
Mode	• REC → PB : SP/LP • S-VHS • Picture Control REC : Normal PB : Edit
Equipment	• Oscilloscope
Measurement point	• Y OUT TERMINAL (75 ohm TERMINATION)
Trigger slope (-)	• TP111 (D.FF)
Adjustment tool	• Jig RCU [PTU94023B] • Digit-key remote controller
EVR mode	• A : 3
Specification	• 3.6 ± 0.4 scale : SP • 3.2 ± 0.4 scale : LP

- (1) Connect an oscilloscope to Y OUT TERMINAL and TP111 (negative slope).
- (2) Record a video sweep signal in the S-VHS SP mode, then play it back.
- (3) Set the EVR mode by transmitting a data code "57" with the Jig RCU.
- (4) Set "A : 3" by pressing 3 button of the remote controller.
- (5) When assuming the 100 KHz sweep signal marker on the bigger channel is four scales on the oscilloscope, adjust the CH "+" or "-" buttons on the front panel or the Digit-key remote controller so that the 3 MHz is set at 3.6 ± 0.4 scale (-1 ± 1.0 dB) while observing Y OUT of the S output. (See Fig. 3-3-7.)
- (6) Set the normal VCR mode by transmitting the data code "57" with the Jig RCU again so adjustment data is memorized.
- (7) Carry out the step (3) and (4) in the S-VHS LP mode.
- (8) When assuming the 100 kHz sweep signal marker on the bigger channel is four scales on the oscilloscope, adjust the CH "+" or "-" buttons on the front panel or the Digit-key remote controller so that the 3 MHz is set at 3.2 ± 0.4 scale (-2 ± 1.0 dB) while observing Y OUT of the S output. (See Fig. 3-3-7.)

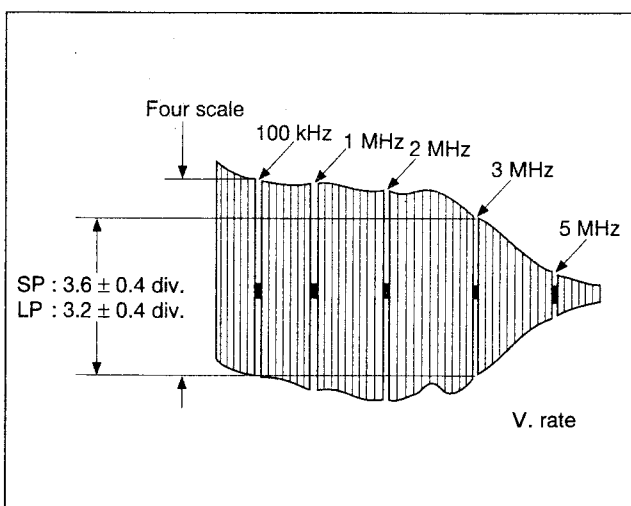


Fig. 3-3-7 S-VHS VIDEO EQ

3.3.5 D/A level

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• CN1003-3 pin (Y OUT) [3D SVHS board]
Adjustment part	• VR1401 (D/A LEVEL) [3D SVHS board]
Specification (NOTE)	• 2.05 Vp-p (REFERENCE VALUE)

- (1) Connect the oscilloscope to the CN1003-3 pin(Y OUT) on the 3D SVHS board.
- (2) Confirm the Y level value during external S input.
- (3) Switch the input signal to the external input, then adjust the VR1401 on the 3D SVHS board so that the Y level value becomes the same level value which was confirmed at the step (2).

Note: • The adjusted value of 2.05 Vp-p is a reference value which should be obtained during external S input. The value should be adjusted to the one which was confirmed at step (2).

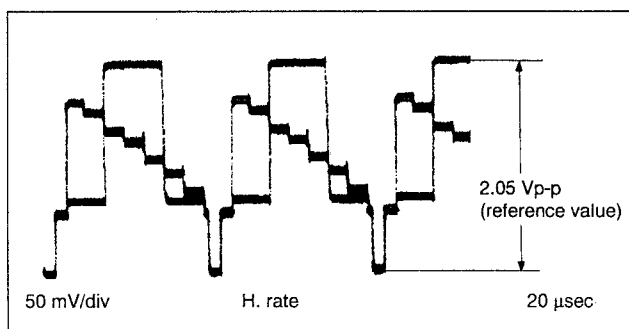


Fig. 3-3-8 D/A LEVEL

3.3.6 Pilot burst level

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP1001 (FSC PHASE) [3D SVHS board]
Adjustment part	• VR1002 (P. BURST LEVEL) [3D SVHS board]
Specification	• "B" × 110 ± 10%

- (1) Connect the oscilloscope to the TP1001 (FSC PHASE) on the 3D SVHS board.
- (2) Load an S-VHS tape then set the unit to the S-VHS EE mode.
- (3) Adjust the VR1002 of the 3D SVHS so that the pilot burst level becomes "B" × 110 ± 10% against the value of the burst level "B".

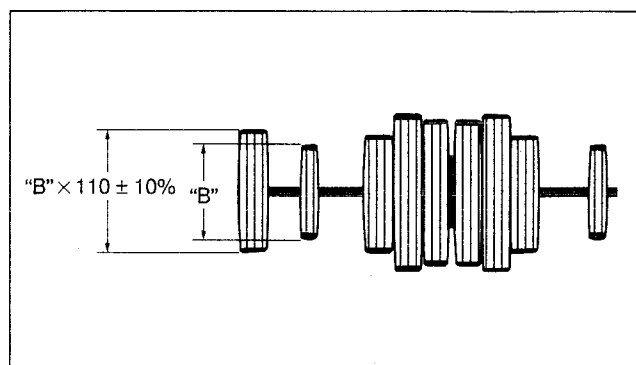


Fig. 3-3-9 PILOT BURST LEVEL

3.3.7 DV EE Y LEVEL

Note: • This adjustment should be done before the DVC circuit is adjusted.

Signal	• Colour bar
Mode	• EE • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP7101 (DV AGC OUT) [Terminal board]
Adjustment part	• VR7101 (DV AGC) [Terminal board]
Specification (NOTE)	• 1.02 ± 0.02 Vp-p

- (1) Connect the oscilloscope to the TP7101(DV AGC OUT) on the Terminal board.
- (2) Adjust the VR7101 on the Terminal board so that the Y level value becomes 1.02 ± 0.02 Vp-p.

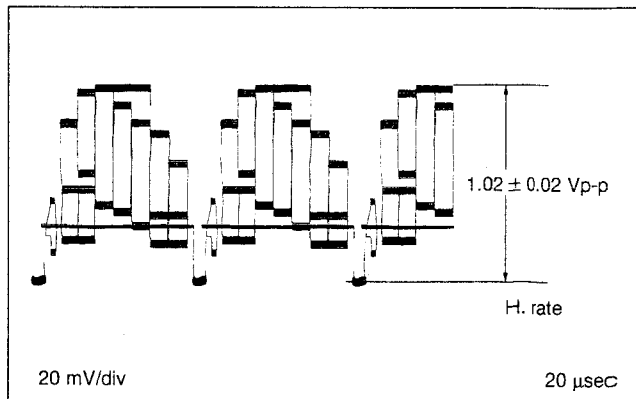


Fig. 3-3-10 DV EE Y LEVEL

3.3.8 Auto picture

Signal	• Monoscope
Mode	• REC → PB : SP/LP • S-VHS
Adjustment tool	• Jig RCU [PTU94023B]
Specification	• STOP mode

- (1) Record a monoscope signal in the SP mode.
- (2) Playback the recorded signal.
- (3) Set the automatic adjustment mode by transmitting a data code "58" with the Jig RCU. Confirm that the VCR will go into the STOP mode automatically.
If ejected, again perform steps (1) to (3).
- (4) Repeat steps (2) to (4) in the LP mode.

3.4 AUDIO CIRCUIT

Notes:

- Unless otherwise specified, all measurement point and adjustment parts are located on the MAIN BOARD.
- This adjustment should be done after the video circuit SP and LP REC colour level are adjusted.
- GND(Ground) should be taken from the tuner board shield.

3.4.1 REC FM level

Signal	• AUX • VIDEO : Colour bar • AUDIO : No signal
Mode	• REC → PB : LP • S-VHS
Equipment	• Oscilloscope
Measurement point	• TP2253 (A. PB FM)
Trigger slope (-)	• TP111 (D. FF)
Adjustment part	• VR2251 (A. REC. FM)
Specification	• 600 ± 100 mVp-p

- (1) Connect an oscilloscope to TP2253.
- (2) Record a colour bar signal without an audio signal in the S-VHS LP mode then playback.
- (3) Adjust VR2251 for 600mVp-p playback level of higher channel level before recording.
- (4) Confirm that the lower channel level is more than 400 mVp-p.

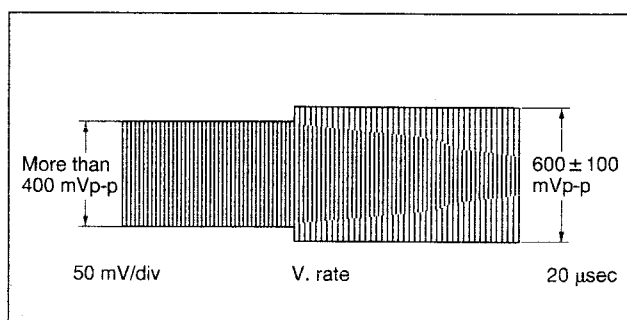


Fig. 3-4-1 Audio REC FM level

ELECTRICAL ADJUSTMENT (DV)

3.5 PREPARATION

3.5.1 Precautions

- (1) The DV section of this model is based on a special adjustment method using a PC. However, ordinary adjustment is required only when the part listed below has been replaced. In this case, the adjustment should be performed by a service center equipped with the required facilities.

• E²PROM (IC1003 on DV main board)

In case of trouble with the electrical circuitry, First identify the faulty position with a measuring tool as described below. Proceed to repair, replacement and/or adjustment only after the troubleshooting.

- (2) Before adjusting the DV section, make sure that the adjustment in the "3.3.7 DV EE Y LEVEL" (page 3-5) is correct.
- (3) When observing a chip TP, use an IC clip or similar tool to protect the chip against stress. When replacing a chip part (IC, particularly), remove solder completely before replacing. (This is to prevent separation of the pattern.)
- (4) The connectors are fragile. Be careful when plugging or unplugging a wire.

3.5.3 Tools required for adjustments

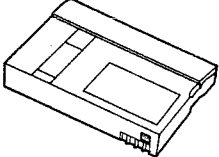
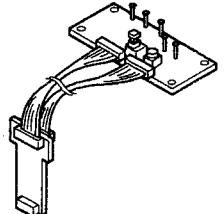
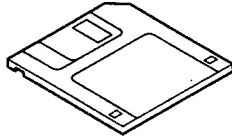
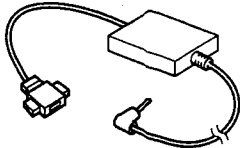
1	Alignment tape MC-2	2	Jig connector cable PTU94018A
			
3	Service support software PTU94016-1	4	PC cable QAM0099-002
			

Fig. 3-5-1

3.5.2 Equipment required for adjustment

- ① Personal computer (Windows compatible)
- ② Colour monitor
- ③ Oscilloscope (2-CH, 100 MHz or more)
- ④ Digital voltmeter
- ⑤ Frequency counter

3.5.4 Setup

1. Setup for computer adjustment

— Setup by extending the jig connector —

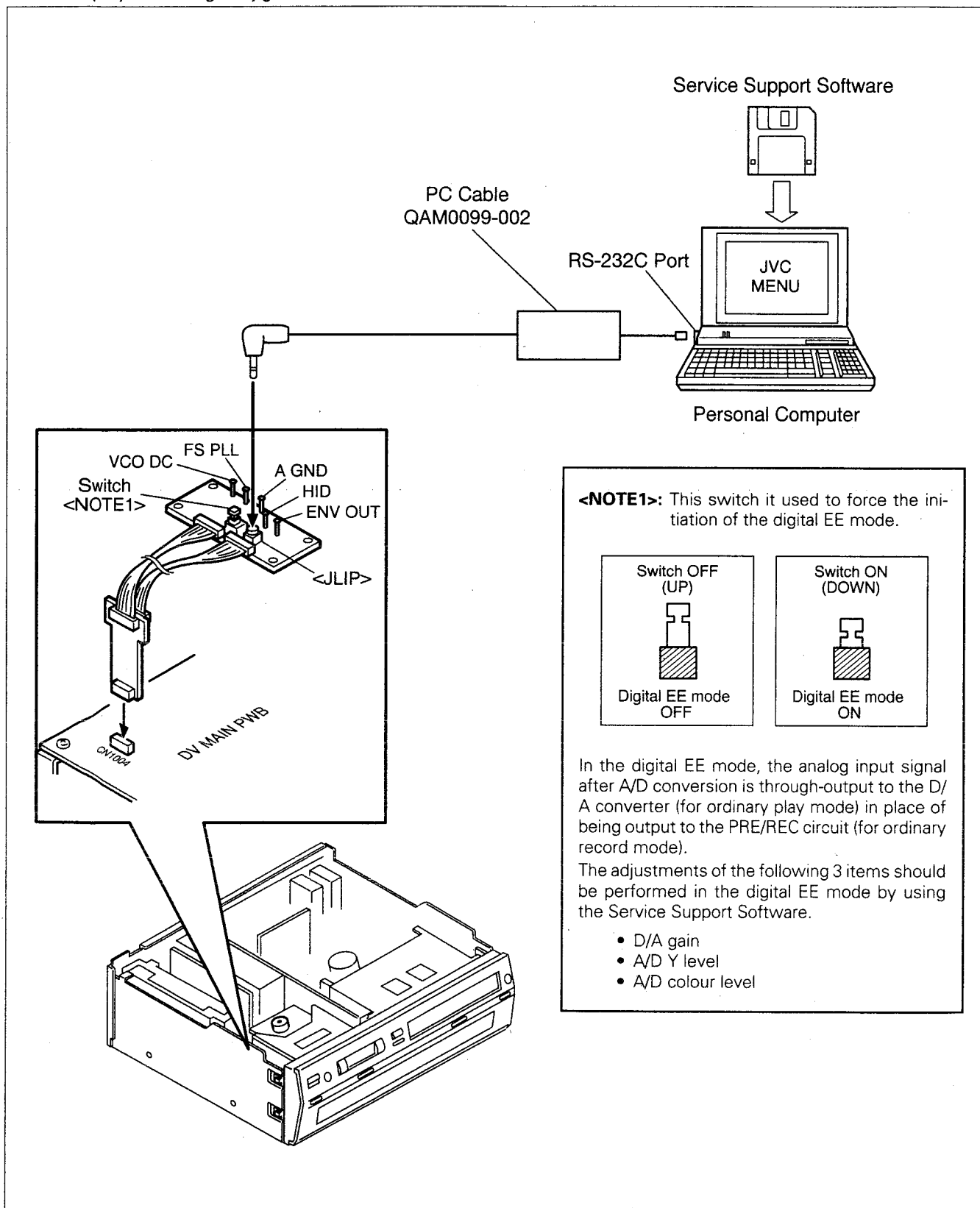


Fig. 3-5-2 Setup for Computer Adjustment

SECTION 4 CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

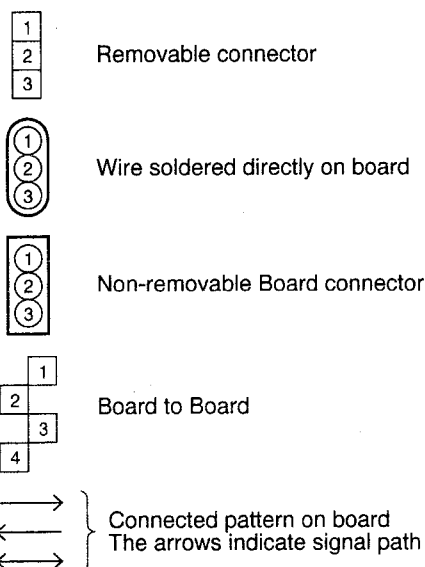
- 1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K: K Ω (1000 Ω), M: M Ω (1000K Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

$\overline{\text{AUX}}$ or AUX(L) : Active at low

3. Interpreting Connector indications

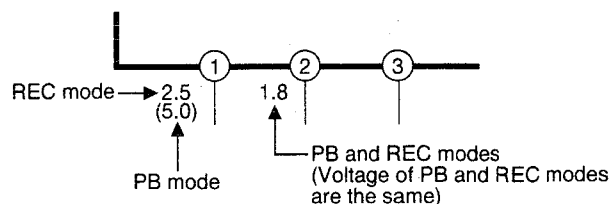


4. Voltage measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
— : Unmeasurable or unnecessary to measure
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode

4) Indication on schematic diagram

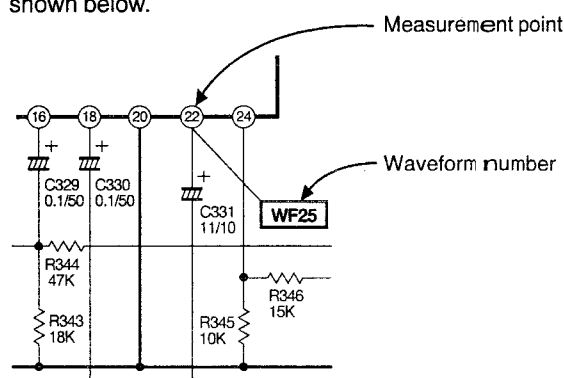
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



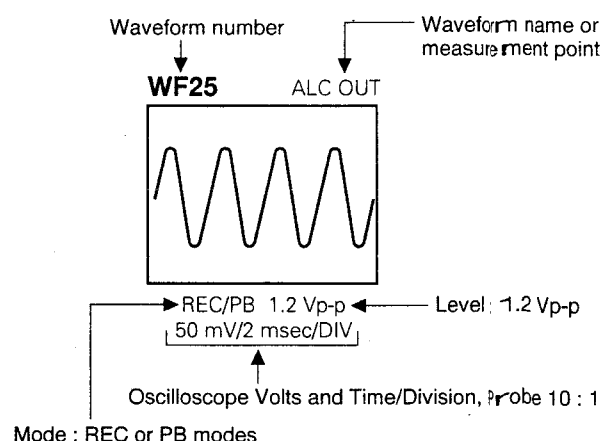
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
- 4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

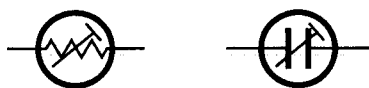
-  Playback signal path
-  Playback and recording signal path
-  Recording signal path (including E-E signal path)
-  Capstan servo path
-  Drum servo path

(Example)

-  R-Y Playback R-Y signal path
-  Y Recording Y signal path

7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.



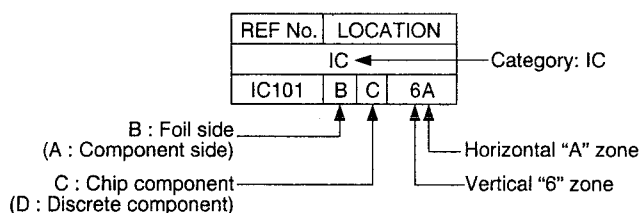
CIRCUIT BOARD NOTES

1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

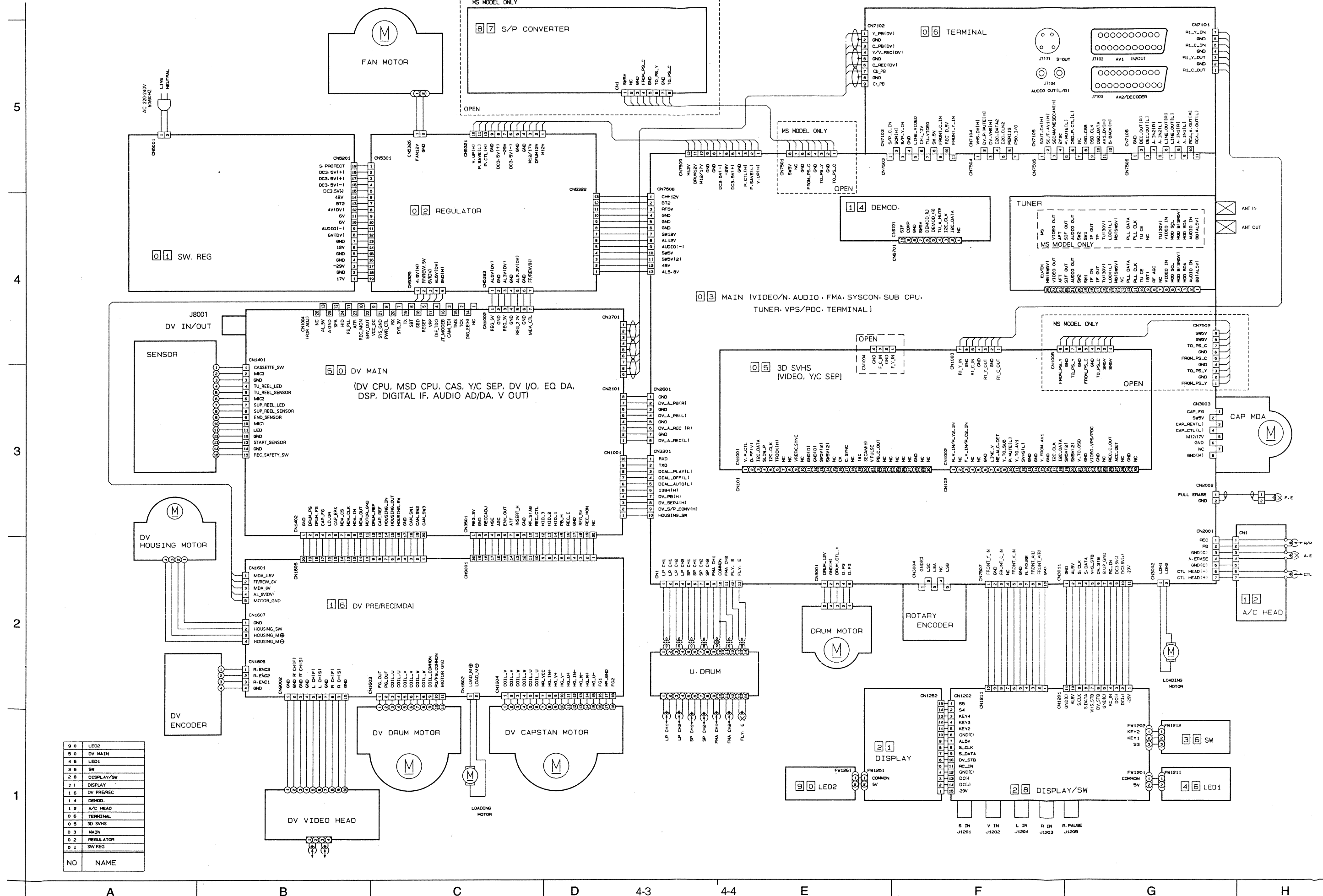
Parts location are indicated by guide scale on the circuit board.



Note:

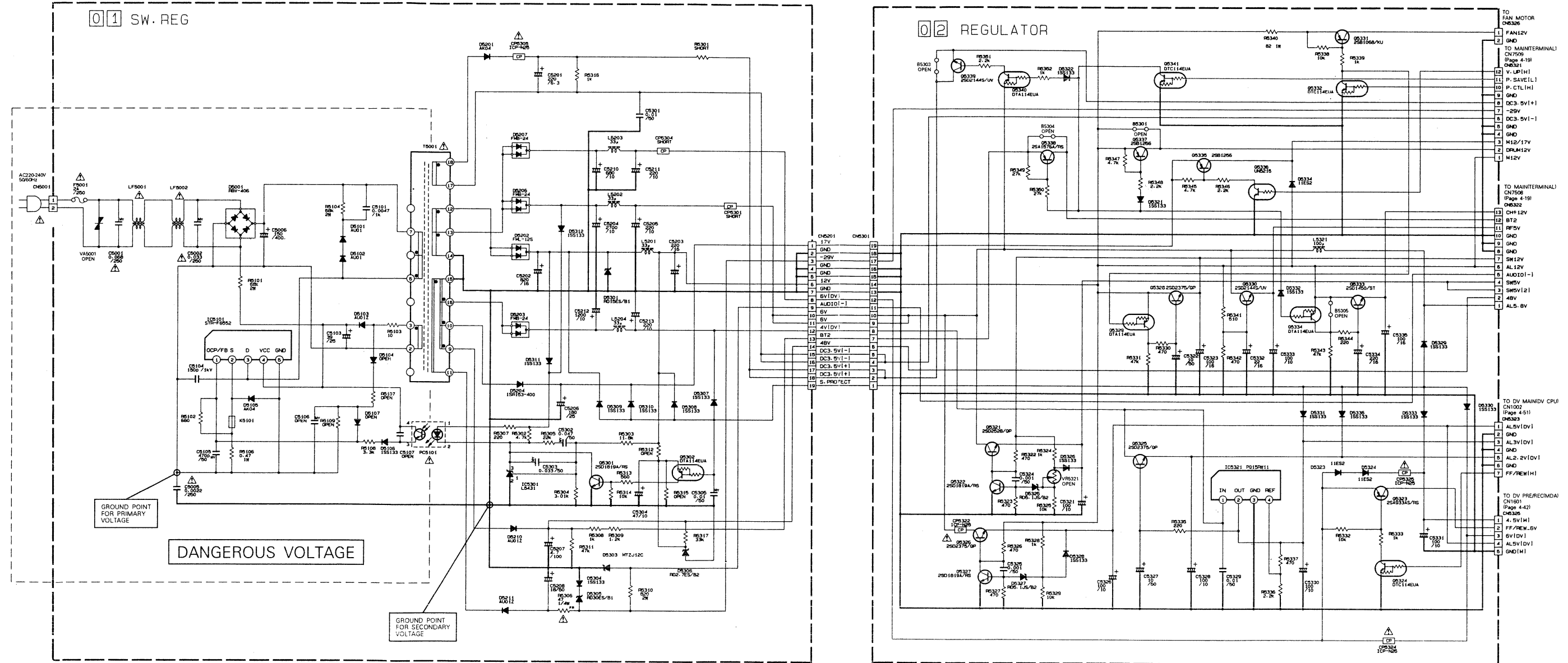
For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



4.2 SWITCHING REGULATOR AND REGULATOR SCHEMATIC DIAGRAMS

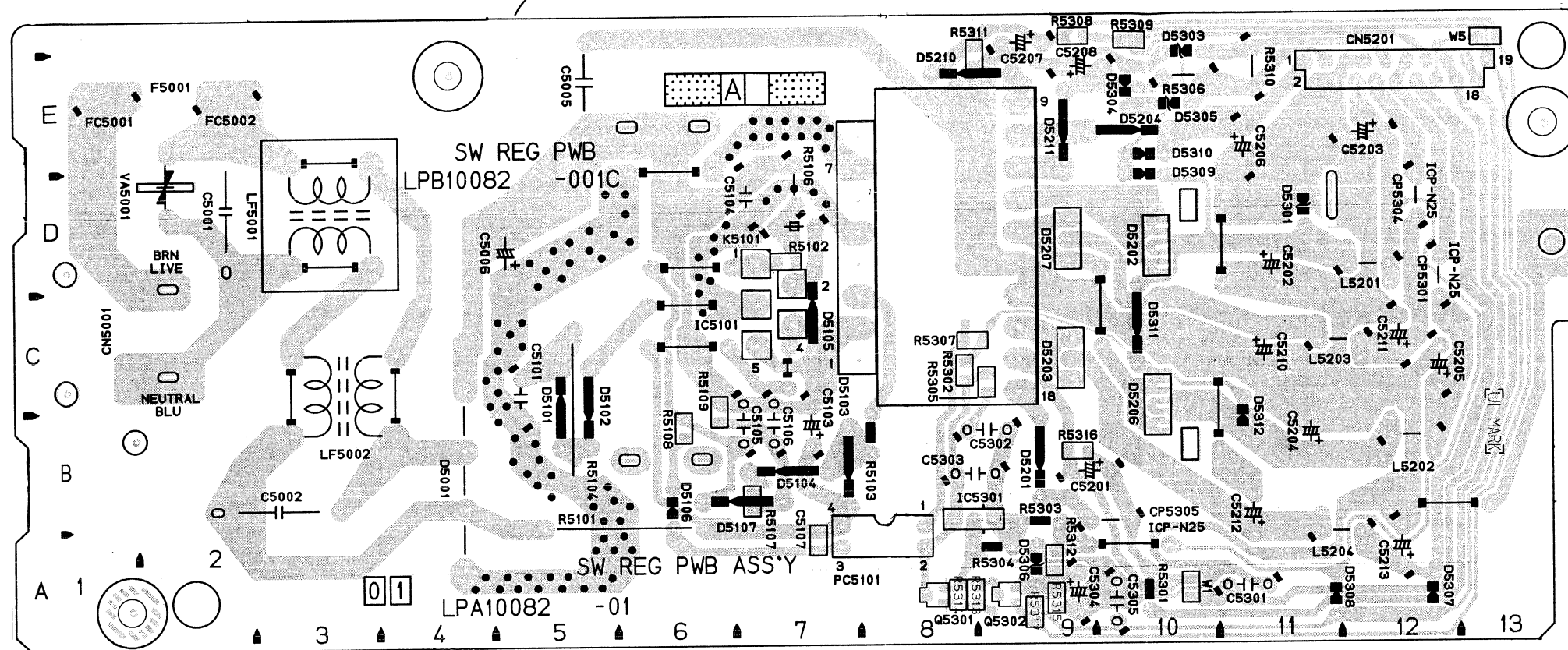
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4.3 SWITCHING REGULATOR AND REGULATOR CIRCUIT BOARDS

— SWITCHING REGULATOR —

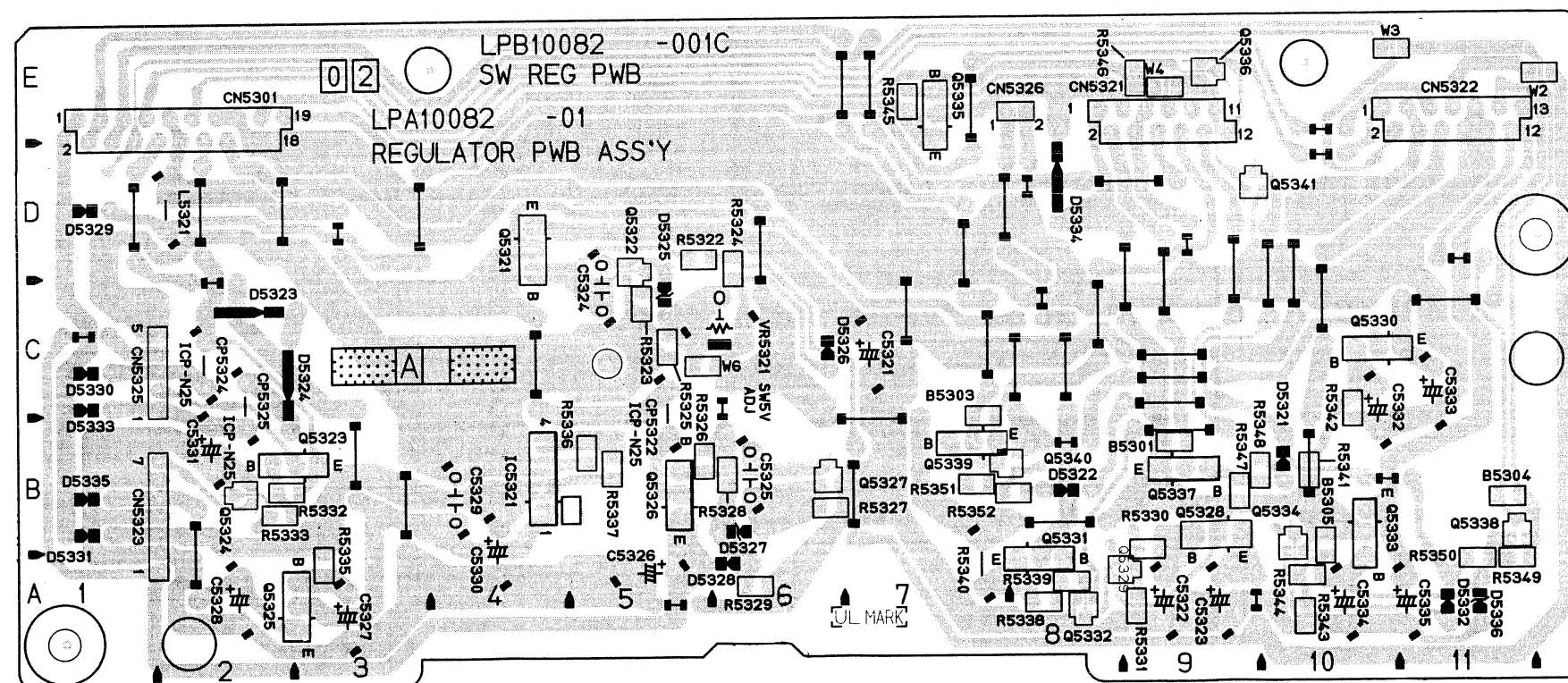
DANGEROUS VOLTAGE



COMPONENT PARTS LOCATION GUIDE <SW REG>

COMPONENT										PARTS LOCATION GUIDE										HOW TO READ									
REF.NO.				LOCATION				REF.NO.				LOCATION				REF.NO.				LOCATION									
CAPACITOR								CONNECTOR								D5310				A	D	10E	R5304				A	D	9A
C5001	A	D	2E	CN5201	A	D	11E	D5311				A	D	10D	R5305				B	C	D	10	R5306				A	D	10
C5002	A	D	3B	DIODE				D5001				A	D	4A	IC				R5307				A	C	8C				
C5005	A	D	5E									D5101	A	D									5B	IC5101				A	D
C5006	A	D	5C	D5102	A	D	5C	IC5301				A	D	9B	R5309				B	C	9F								
C5101	A	D	5B	D5103	A	D	7B					COIL							R5310				B	C	11B				
C5103	A	D	7B	D5104	A	D	7B	L5201								A	D	12D					R5311				B	C	9E
C5104	A	D	7D	D5105	A	D	7C					L5202				A	D	12B	R5312								B	C	9A
C5105	A	D	7D	D5106	A	D	6B	L5203								A	D	12C					R5313				B	C	8A
C5106	A	D	7B	D5107	A	D	7B					L5204				A	D	12A	R5314								B	C	8A
C5107	B	C	7A	D5201	A	D	9B	TRANSISTOR								Q5301							B	C	8A	OTHER			
C5201	A	D	10B	D5202	A	D	10D					Q5302								B	C	9A	CP5302						
C5202	A	D	11D	D5203	A	D	9C	RESISTOR								R5101				A	D	6B					CP5303		
C5203	A	D	12E	D5204	A	D	9E					R5102								B	C	7D	CP5305						
C5204	A	D	11B	D5206	A	D	10C	R5103								A	D	8B	F5001								A	D	1D
C5205	A	D	12C	D5207	A	D	9D					R5104				A	D	5B					K5101				A	D	7E
C5206	A	D	11E	D5210	A	D	9E	R5105								A	D	7E	LF5001								A	D	3E
C5207	A	D	9F	D5211	A	D	11D					R5106				A	D	7E					PC5101				A	D	8B
C5208	A	D	9E	D5301	A	D	10E	R5107								B	C	7B	T5001								A	D	8C
C5210	A	D	11C	D5303	A	D	10E					R5108				B	C	6B					VA5001				A	D	2E
C5211	A	D	12C	D5304	A	D	10E	R5109								B	C	6B	R5301								A	D	10A
C5212	A	D	11A	D5305	A	D	10E					R5302				A	D	8C					R5303				A	D	9B
C5213	A	D	12A	D5306	A	D	9A	R5303								A	D	9B	R5304								A	D	10A
C5301	A	D	11A	D5307	A	D	12A					R5306				A	D	10A					R5307				A	D	9B
C5302	A	D	9B	D5308	A	D	11A	R5308								A	D	10A	R5309								A	D	9B
C5303	A	D	9B	D5309	A	D	10D					R5310				A	D	10A					R5311				A	D	9B
C5304	A	D	9A																										
C5305	A	D	10A																										

— REGULATOR —

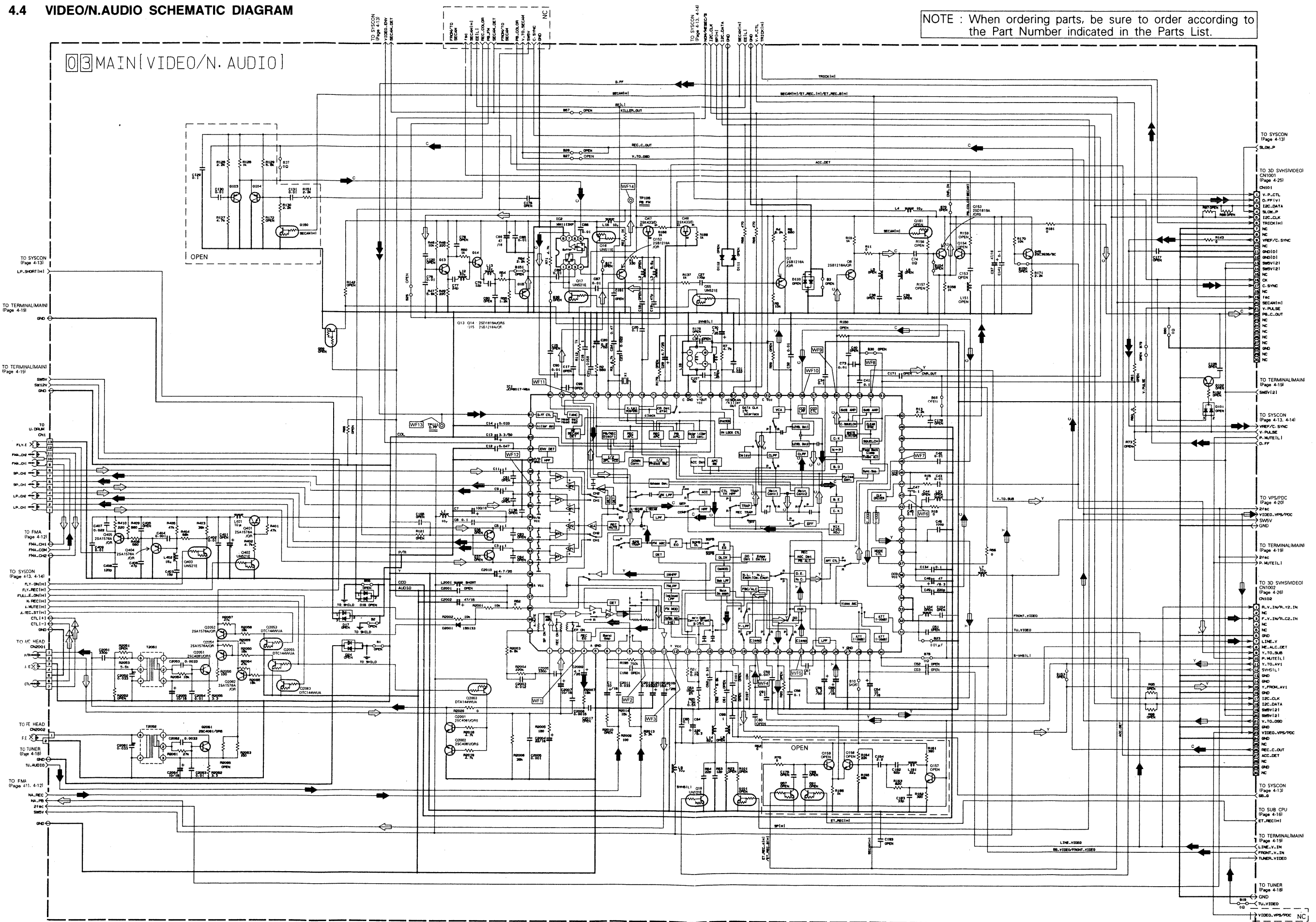


COMPONENT PARTS LOCATION GUIDE <REGULATOR>

COMPONENT PARTS LOCATION GUIDE (RESISTOR)																
REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION				
CAPACITOR				D5324	A	D	3C	Q5330	A	D	11C	R5338	B	C	8A	
C5321	A	D	7C	D5325	A	D	5D	Q5331	A	D	8A	R5339	A	D	8B	
C5322	A	D	9A	D5326	A	D	6C	Q5332	B	C	8A	R5340	A	D	8B	
C5323	A	D	9A	D5327	A	D	6B	Q5333	A	D	10B	R5341	B	C	10B	
C5324	A	D	5C	D5328	A	D	6A	Q5334	B	C	10B	R5342	B	C	10B	
C5325	A	D	6B	D5329	A	D	1D	Q5335	A	D	7D	R5343	B	C	11B	
C5326	A	D	5A	D5330	A	D	1C	Q5336	B	C	9E	R5344	B	C	11B	
C5327	A	D	3A	D5331	A	D	1B	Q5337	A	D	9B	R5345	B	C	7B	
C5328	A	D	2A	D5332	A	D	11A	Q5338	B	C	11B	R5346	B	C	9B	
C5329	A	D	4B	D5333	A	D	1C	Q5339	A	D	8B	R5347	B	C	9B	
C5330	A	D	4B	D5334	A	D	8D	Q5340	B	C	8B	R5348	B	C	11B	
C5331	A	D	2B	D5335	A	D	1B	Q5341	B	C	10D	R5349	B	C	11B	
C5332	A	D	10C	D5336	A	D	11A	RESISTOR				R5350	B	C	11B	
C5333	A	D	11C	IC				R5322	B	B	C	5C	R5351	B	C	8B
C5334	A	D	10A	IC5321	A	D	4B	R5323	B	B	C	6C	R5352	B	C	8B
C5335	A	D	11A	COIL				R5324	B	B	C	5D	VR5321	A	D	6B
CONNECTOR				L5321	A	D	2D	R5325	B	B	C	6C	OTHER			
CN5301	A	D	1E	TRANSISTOR				R5326	B	B	C	6B	CP5322	A	D	5B
CN5321	A	D	8E	Q5321	A	D	4D	R5327	B	B	C	6B	CP5324	A	D	2B
CN5322	A	D	10E	Q5322	B	C	5D	R5328	B	B	C	6B	CP5325	A	D	2B
CN5323	A	D	2A	Q5323	A	D	3B	R5329	B	B	C	6A				
CN5325	A	D	2C	Q5324	B	C	2B	R5330	B	B	C	9A				
CN5326	A	D	8E	Q5325	A	D	3A	R5331	B	B	C	9A				
DIODE				Q5326	A	D	5B	R5332	B	B	C	2B				
D5321	A	D	10B	Q5327	B	C	6B	R5335	B	B	C	3A				
D5322	A	D	8B	Q5328	A	D	9B	R5336	B	B	C	5B				
D5323	A	D	2C	Q5329	B	C	9A	R5337	B	B	C	5B				

4.4 VIDEO/N.AUDIO SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



NOTE : For VIDEO/N.AUDIO waveforms, please refer to page 4-24.

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

1

A	B	C	D	4-11	4-12	E	F	G	H
---	---	---	---	------	------	---	---	---	---

4.6 SYSTEM CONTROL SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

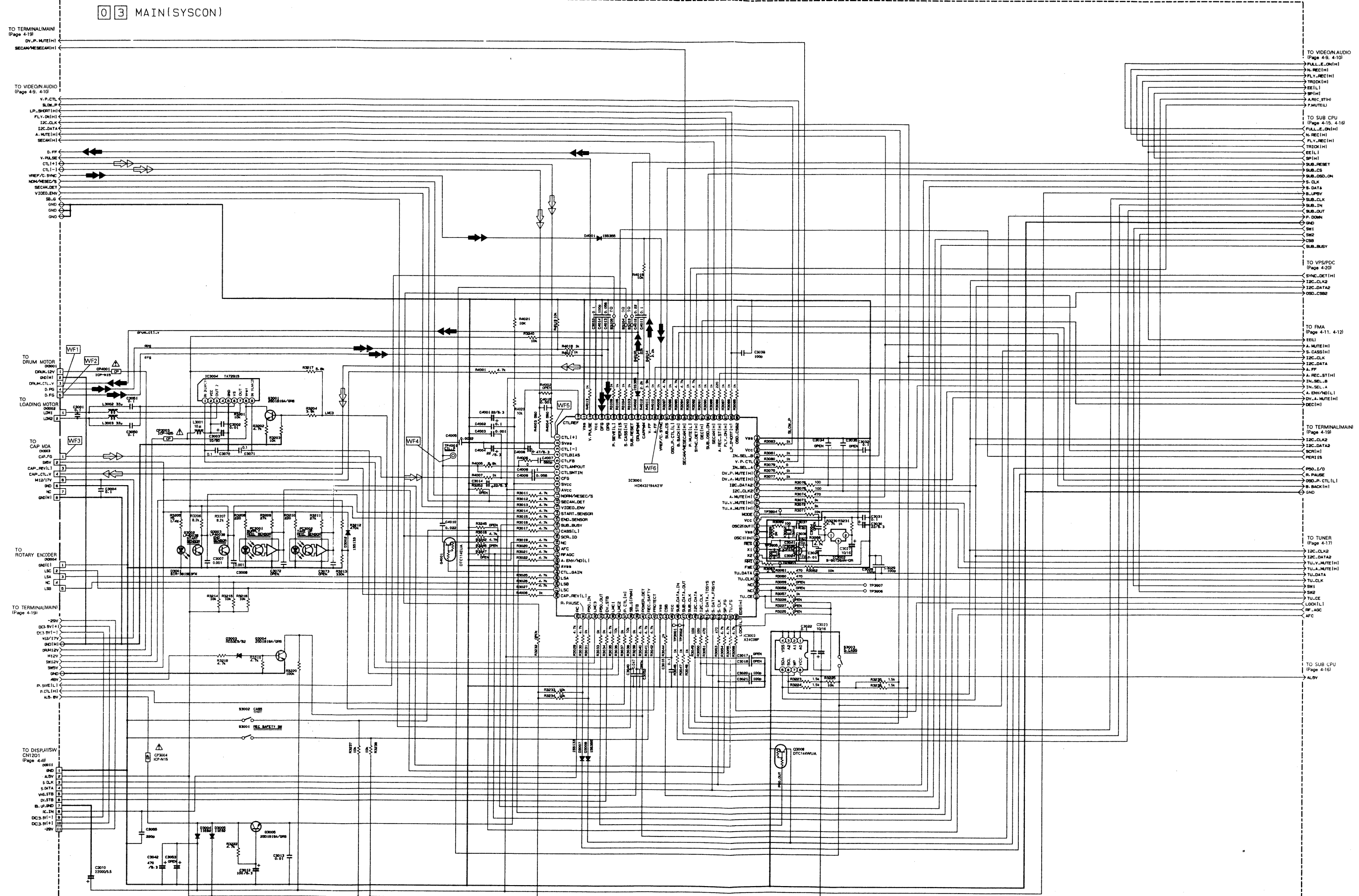
5

4

3

2

1

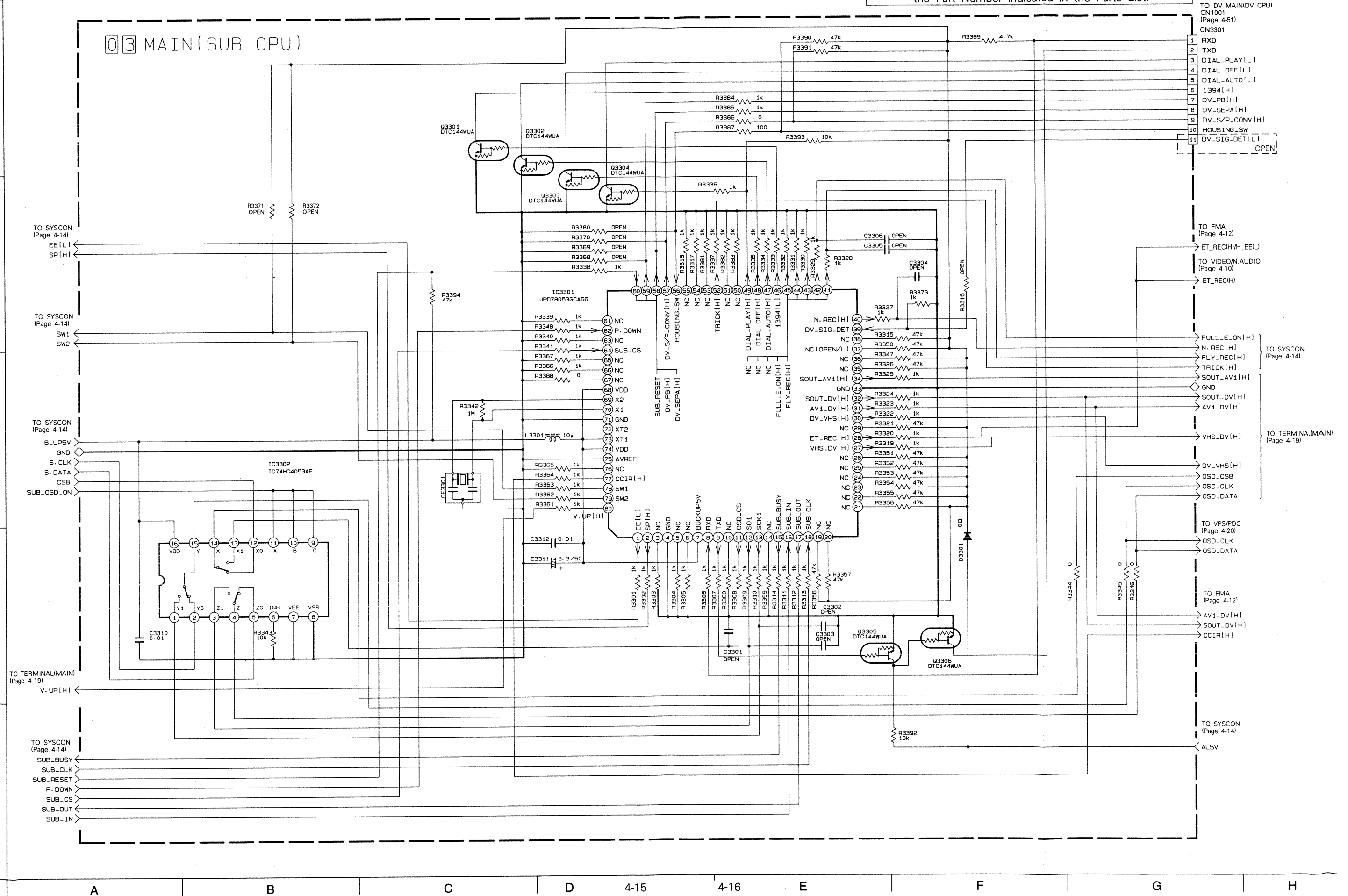


NOTES : 1.For SYSCON waveforms, please refer to page 4-24.
2.The SYSTEM CONTROL circuit of this model has an automatic recognition about the ON-OFF control of the DOCTOR SYSTEM.

A B C D 4-13 4-14 E F G H

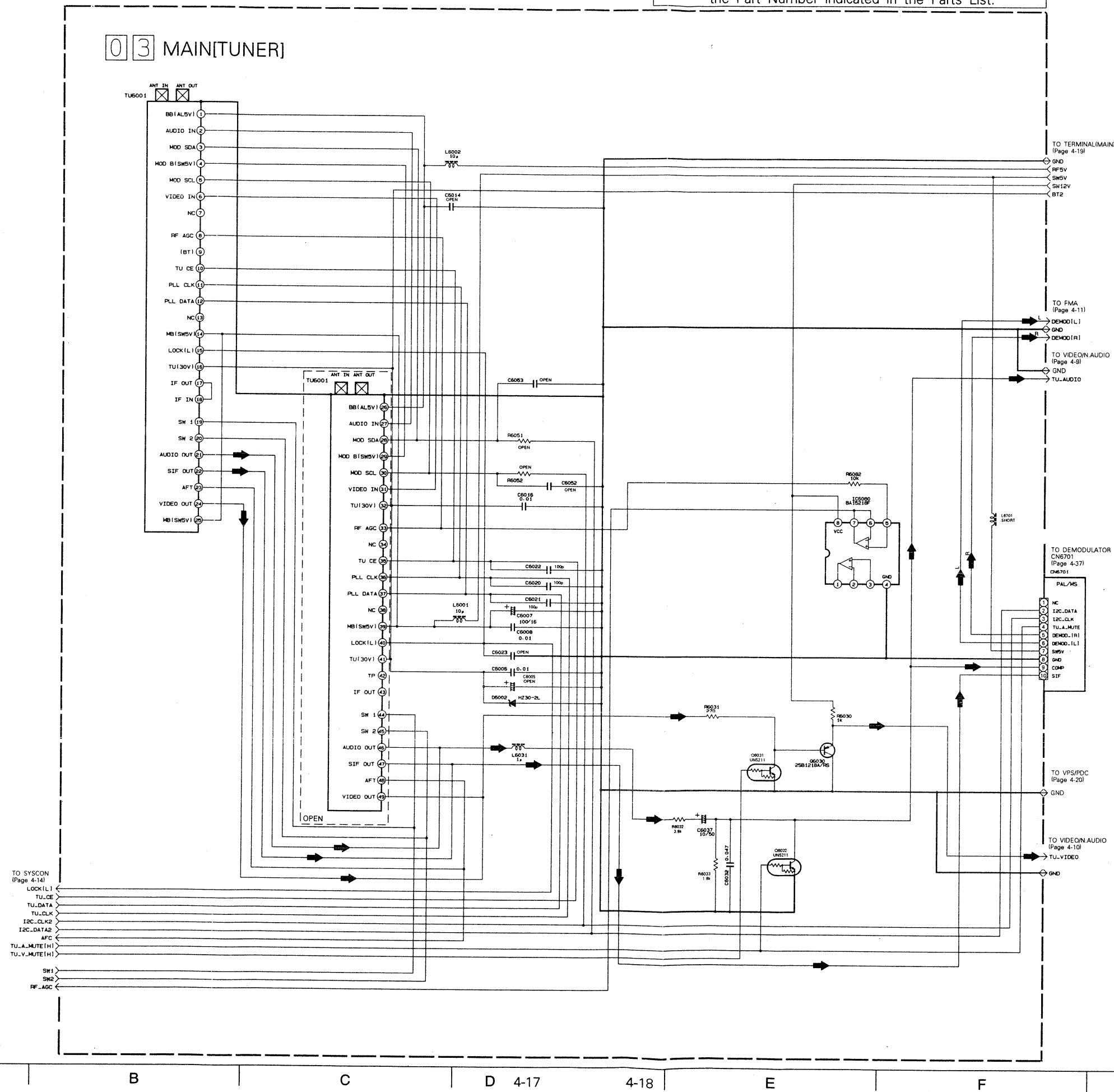
4.7 SUB CPU SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

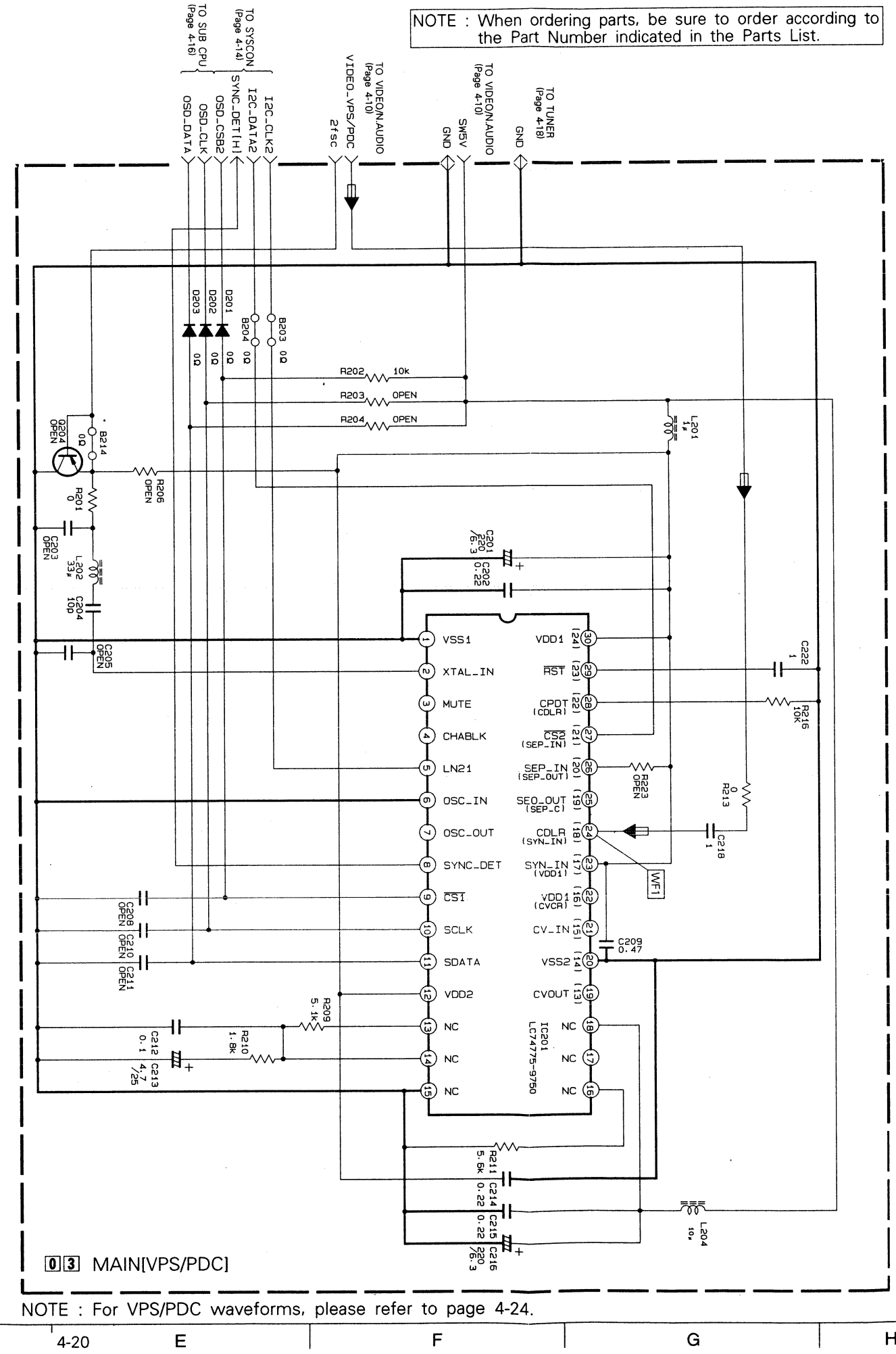
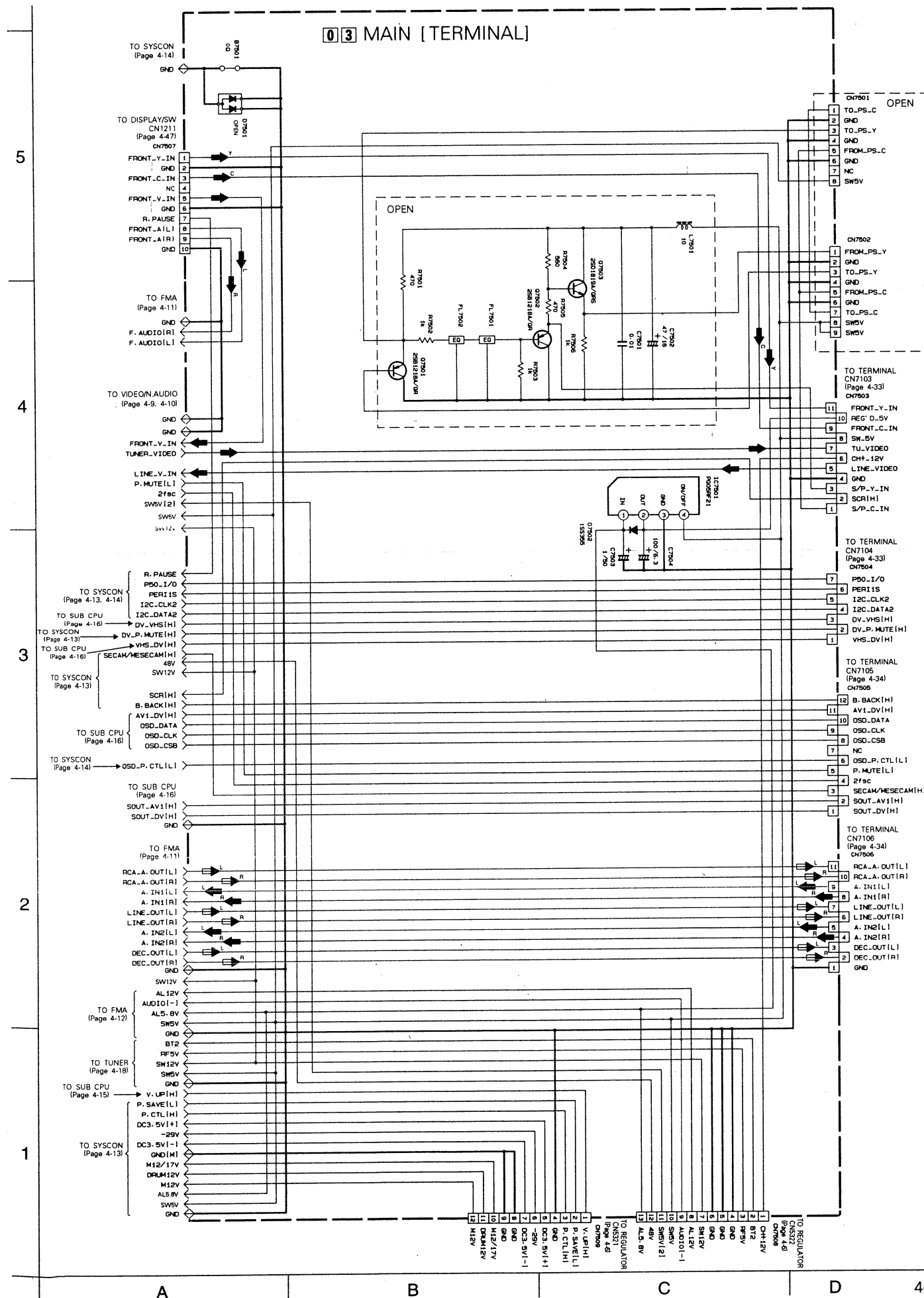


4.8 TUNER SCHEMATIC DIAGRAM

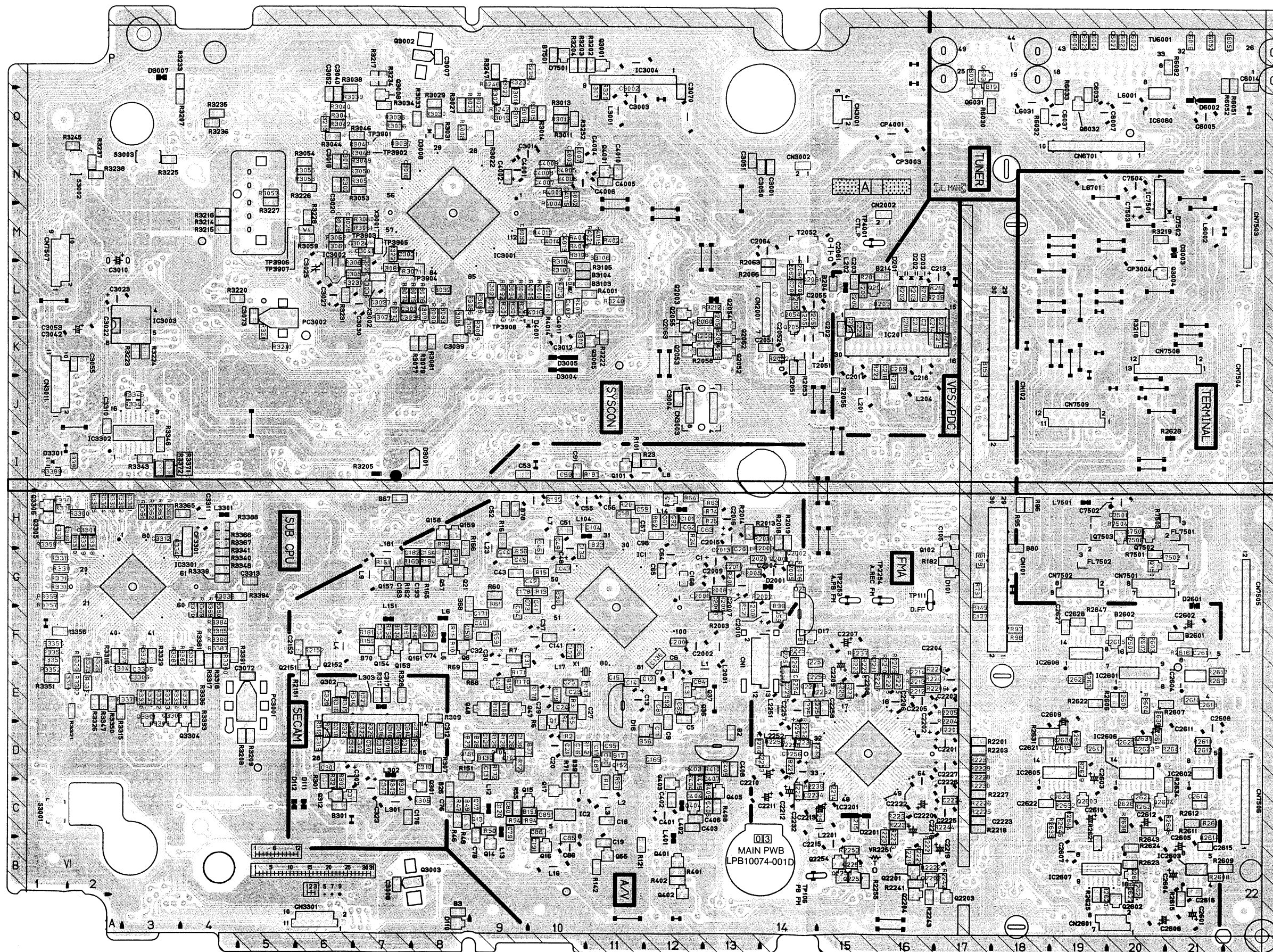
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



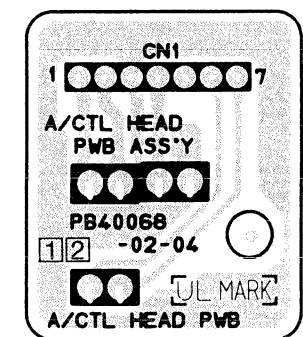
4.9 TERMINAL(MAIN) AND VPS/PDC SCHEMATIC DIAGRAMS



4.10 MAIN AND A/C HEAD CIRCUIT BOARDS



— A/C HEAD —

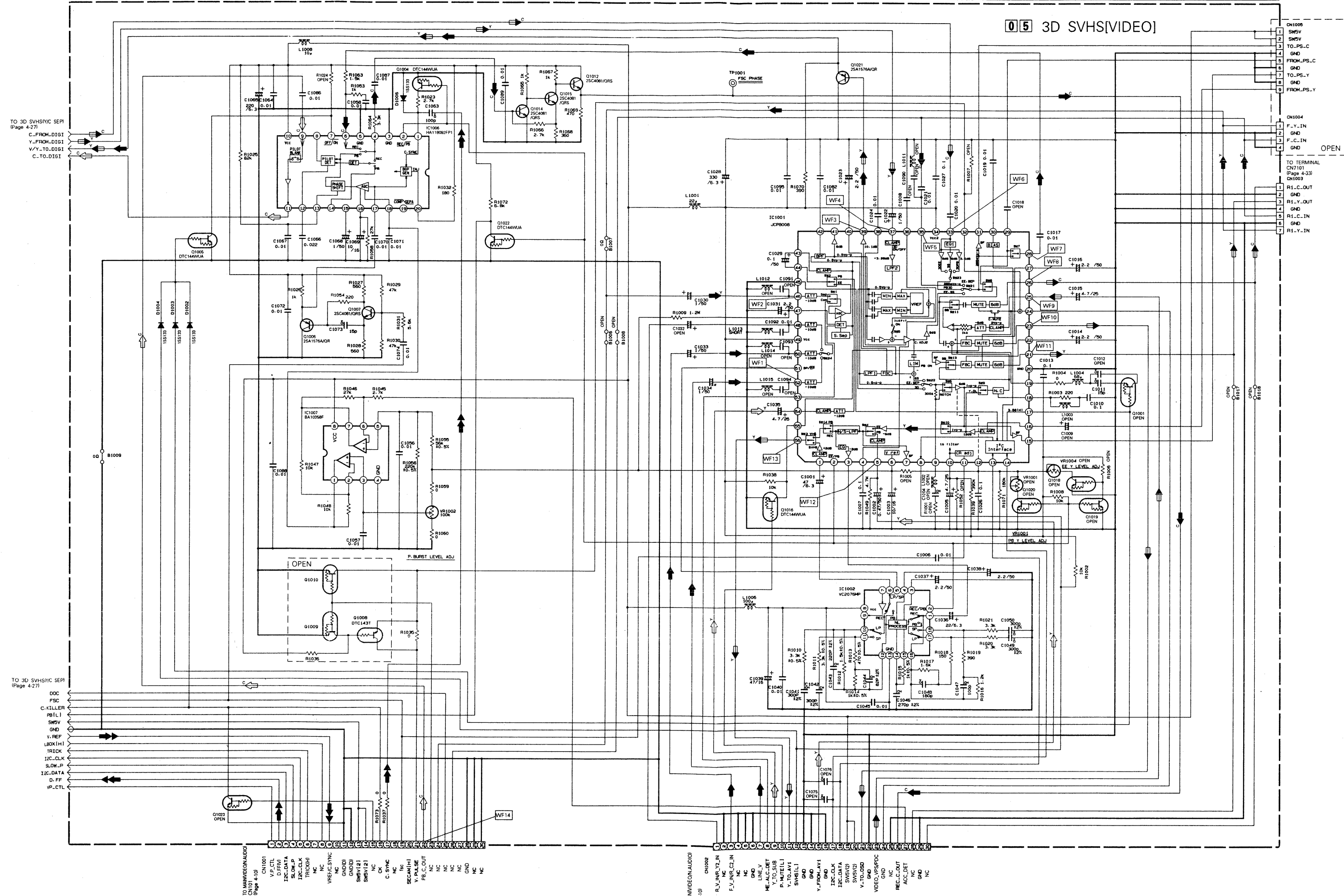


COMPONENT PARTS LOCATION GUIDE <MAIN>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR															
C1	13G	C317	7E	C3027	6L	IC2608	19F	Q4001	11N	R2009	14H	R3029	80	R3331	3E
C2	12E	C318	6D	C3028	6M	IC3001	19F	Q6030	17P	R2010	14H	R3030	80	R3332	3E
C3	12E	C319	6D	C3029	6M	IC3002	19F	Q6031	17P	R2011	14H	R3031	80	R3333	3E
C4	12E	C320	6D	C3030	6M	IC3003	19F	Q6032	17P	R2012	14H	R3032	80	R3334	3E
C5	12E	C321	6D	C3031	6M	IC3004	19F	Q7501	20G	R2013	14H	R3033	80	R3335	3E
C6	12E	C322	6D	C3032	6M	IC3005	19F	Q7502	20G	R2014	14H	R3034	80	R3336	3E
C7	12E	C323	6D	C3033	6M	IC3006	19F	Q7503	20G	R2015	14H	R3035	80	R3337	3E
C8	12E	C324	6D	C3034	6M	IC3007	19F	Q7504	20G	R2016	14H	R3036	80	R3338	3E
C9	12E	C325	6D	C3035	6M	IC3008	19F	Q7505	20G	R2017	14H	R3037	80	R3339	3E
C10	12E	C326	6D	C3036	6M	IC3009	19F	Q7506	20G	R2018	14H	R3038	80	R3340	3E
C11	12E	C327	6D	C3037	6M	IC3010	19F	Q7507	20G	R2019	14H	R3039	80	R3341	3E
C12	12E	C328	6D	C3038	6M	IC3011	19F	Q7508	20G	R2020	14H	R3040	80	R3342	3E
C13	12E	C329	6D	C3039	6M	IC3012	19F	Q7509	20G	R2021	14H	R3041	80	R3343	3E
C14	12E	C330	6D	C3040	6M	IC3013	19F	Q7510	20G	R2022	14H	R3042	80	R3344	3E
C15	12E	C331	6D	C3041	6M	IC3014	19F	Q7511	20G	R2023	14H	R3043	80	R3345	3E
C16	12E	C332	6D	C3042	6M	IC3015	19F	Q7512	20G	R2024	14H	R3044	80	R3346	3E
C17	12E	C333	6D	C3043	6M	IC3016	19F	Q7513	20G	R2025	14H	R3045	80	R3347	3E
C18	12E	C334	6D	C3044	6M	IC3017	19F	Q7514	20G	R2026	14H	R3046	80	R3348	3E
C19	12E	C335	6D	C3045	6M	IC3018	19F	Q7515	20G	R2027	14H	R3047	80	R3349	3E
C20	12E	C336	6D	C3046	6M	IC3019	19F	Q7516	20G	R2028	14H	R3048	80	R3350	3E
C21	12E	C337	6D	C3047	6M	IC3020	19F	Q7517	20G	R2029	14H	R3049	80	R3351	3E
C22	12E	C338	6D	C3048	6M	IC3021	19F	Q7518	20G	R2030	14H	R3050	80	R3352	3E
C23	12E	C339	6D	C3049	6M	IC3022	19F	Q7519	20G	R2031	14H	R3051	80	R3353	3E
C24	12E	C340	6D	C3050	6M	IC3023	19F	Q7520	20G	R2032	14H	R3052	80	R3354	3E
C25	12E	C341	6D	C3051	6M	IC3024	19F	Q7521	20G	R2033	14H	R3053	80	R3355	3E
C26	12E	C342	6D	C3052	6M	IC3025	19F	Q7522	20G	R2034	14H	R3054	80	R3356	3E
C27	12E	C343	6D	C3053	6M	IC3026	19F	Q7523	20G	R2035	14H	R3055	80	R3357	3E
C28	12E	C344	6D	C3054	6M	IC3027	19F	Q7524	20G	R2036	14H	R3056	80	R3358	3E
C29	12E	C345	6D	C3055	6M	IC3028	19F	Q7525	20G	R2037	14H	R3057	80	R3359	3E
C30	12E	C346	6D	C3056	6M	IC3029	19F	Q7526	20G	R2038	14H	R3058	80	R3360	3E
C31	12E	C347	6D	C3057	6M	IC3030	19F	Q7527	20G	R2039	14H	R3059	80	R3361	3E
C32	12E	C348	6D	C3058	6M	IC3031	19F	Q7528	20G	R2040	14H	R3060	80	R3362	3E
C33	12E	C349	6D	C3059	6M	IC3032	19F	Q7529	20G	R2041	14H	R3061	80	R3363	3E
C34	12E	C350	6D	C3060	6M	IC3033	19F	Q7530	20G	R2042	14H	R3062	80	R3364	3E
C35	12E	C351	6D	C3061	6M	IC3034	19F	Q7531	20G	R2043	14H	R3063	80	R3365	3E
C36	12E	C352	6D	C3062	6M	IC3035	19F	Q7532	20G	R2044	14H	R3064	80	R3366	3E
C37	12E	C353	6D	C3063	6M	IC3036	19F	Q7533	20G	R2045	14H	R3065	80	R3367	3E
C38	12E	C354	6D	C3064	6M	IC3037	19F	Q7534	20G	R2046	14H	R3066	80	R3368	3E
C39	12E	C355	6D	C3065	6M	IC3038	19F	Q7535	20G	R2047	14H	R3067	80	R3369	3E
C40	12E	C356	6D	C3066	6M	IC3039	19F	Q7536	20G	R2048	14H	R3068	80	R3370	3E
C41	12E	C357	6D	C3067	6M	IC3040	19F	Q7537	20G	R2049	14H	R3069	80	R3371	3E
C42	12E	C358	6D	C3068	6M	IC3041	19F	Q7538	20G	R2050	14H	R3070	80	R3372	3E
C43	12E	C359	6D	C3069	6M	IC3042	19F	Q7539	20G	R2051	14H	R3071	80	R3373	3E
C44	12E	C360	6D	C3070	6M	IC3043	19F	Q7540	20G	R2052	14H	R3072	80	R3374	3E
C45	12E	C361	6D	C3071	6M	IC3044	19F	Q7541	20G	R2053	14H	R3073	80	R3375	3E
C46	12E	C362	6D	C3072	6M	IC3045	19F	Q7542	20G	R2054	14H	R3074	80	R3376	3E
C47	12E	C363	6D	C3073	6M	IC3046	19F	Q7543	20G	R2055	14H	R3075	80	R3377	3E
C48	12E	C364	6D	C3074	6M	IC3047	19F	Q7544	20G	R2056	14H	R3076	80	R3378	3E
C49	12E	C365	6D	C3075	6M	IC3048	19F	Q7545	20G	R2057	14H	R3077	80	R3379	3E
C50	12E	C366	6D	C3076	6M	IC3049	19F	Q7546	20G	R2058	14H	R3078	80	R3380	3E
C51	12E	C367	6D	C3077	6M	IC3050	19F	Q7547	20G	R2059	14H	R3079	80	R3381	3E
C52	12E	C368	6D	C3078	6M	IC3051	19F	Q7548	20G	R2060	14H	R3080	80	R3382	3E
C53	12E	C369	6D	C3079	6M	IC3052	19F	Q7549	20G	R2061	14H	R3081	80	R3383	3E
C54	12E	C370	6D	C3080	6M	IC3053	19F	Q7550	20G	R2062	14H	R3082	80	R3384	3E
C55	12E	C371	6D	C3081	6M	IC3054	19F	Q7551	20G	R2063	14H	R3083	80	R3385	3E
C56	12E	C372	6D	C3082	6M	IC3055	19F	Q7552	20G	R2064	14H	R3084	80	R3386	3E
C57	12E	C373	6D	C3083	6M	IC3056	19F	Q7553	20G	R2065	14H	R3085	80	R3387	3E
C58	12E	C374	6D	C3084	6M	IC3057	19F	Q7554	20G	R2066	14H	R3086	80	R3388	3E
C59	12E	C375	6D	C3085	6M	IC3058	19F	Q7555	20G	R2067	14H	R3087	80	R3389	3E
C60	12E	C376	6D	C3086	6M	IC3059	19F	Q7556	20G	R2068	14H	R3088	80	R3390	3E
C61	12E	C377	6D	C3087	6M	IC3060	19F	Q7557	20G	R2069	14H	R3089	80	R3391	3E
C62	12E	C378	6D	C3088	6M	IC3061	19F	Q7558	20G	R2070	14H	R3090	80	R3392	3E
C63	12E	C379	6D	C3089	6M	IC3062	19F	Q7559	20G	R2071	14H	R3091	80	R3393	3E
C64	12E	C380	6D	C3090	6M	IC3063	19F	Q7560	20G	R2072	14H	R3092	80	R3394	3E
C65	12E	C381	6D	C3091	6M	IC3064	19F	Q7561	20G	R2073	14H	R3093	80	R3395	3E
C66	12E	C382	6D	C3092	6M	IC3065	19F	Q7562	20G	R2074	14H	R3094	80	R3396	3E
C67	12E	C383	6D	C3093	6M	IC3066	19F	Q7563	20G	R2075	14H	R3095	80	R3397	3E
C68	12E	C384	6D	C3094	6M	IC3067	19F	Q7564	20G	R2076	14H	R3096	80	R3398	3E
C69	12E	C385	6D	C3095	6M	IC3068	19F	Q7565	20G	R2077	14H	R3097	80	R3399	3E
C70	12E	C386	6D	C3096	6M	IC3069	19F	Q7566	20G	R2078	14H	R3098	80	R3400	3E
C71	12E	C387	6D	C3097	6M	IC3070	19F	Q7567	20G	R2079	14H	R3099	80	R3401	3E
C72	12E	C388	6D	C3098	6M	IC3071	19F	Q7568	20G	R2080	14H	R3100	80	R3402	3E
C73	12E	C389	6D	C3099	6M	IC3072	19F	Q7569	20G	R2081	14H	R3101	80	R3403	3E
C74	12E	C390	6D	C3100	6M	IC3073	19F	Q7570	20G	R2082	14H	R3102	80	R3404	3E
C75	12E	C391	6D	C3101	6M	IC3074	19F	Q7571	20G	R2083	14H	R3103	80	R3405	3E
C76	12E	C392	6D	C3102	6M	IC3075	19F	Q7572	20G	R2084	14H	R3104	80	R3406	3E
C77	12E	C393	6D	C3103	6M	IC3076	19F	Q7573	20G	R2085	14H	R3105	80	R3407	3E
C78	12E	C394	6D	C3104	6M	IC3077	19F	Q7574	20G	R2086	14H	R3106	80	R3408	3E
C79	12E	C395	6D	C3105	6M	IC3078	19F	Q7575	20G	R2087	14H	R3107	80	R3409	3E
C80	12E	C396	6D	C3106	6M	IC3079	19F	Q7576	20G	R2088	14H	R3108	80	R3410	3E
C81	12E	C397	6D	C3107	6M	IC3080	19F	Q7577	20G	R2089	14H	R3109	80	R3411	3E
C82	12E	C398	6D	C3108	6M	IC3081	19F	Q7578	20G	R2090	14H	R3110	80	R3412	3E
C83	12E	C399	6D	C3109	6M	IC3082	19F	Q7579	20G	R2091	14H	R3111	80	R3413	3E
C84	12E	C400	6D	C3110	6M	IC3083	19F	Q7580	20G	R2092	14H	R3112	80	R3414	3E
C85	12E	C401	6D	C3111	6M	IC3084	19F	Q7581	20G	R2093	14H	R3113	80	R3415	3E
C86	12E	C402	6D	C3112	6M	IC3085	19F	Q7582	20G	R2094	14H	R3114	80	R3416	3E
C87	12E	C403	6D	C3113	6M	IC3086	19F	Q7583	20G	R2095	14H	R3115	80	R3417	3E
C88	12E	C404	6D	C3114	6M	IC3087	19F	Q7584	20G	R2096	14H	R3116	80	R3418	3E

4.11 3D SVHS(VIDEO) SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



NOTE : For VIDEO waveforms, please refer to page 4-31, 4-32.

TO MAINVIDEO.N.AUDIO)

TO MAIN/VIDEO/N.AUDIO)
CN102
(Page 4-10)

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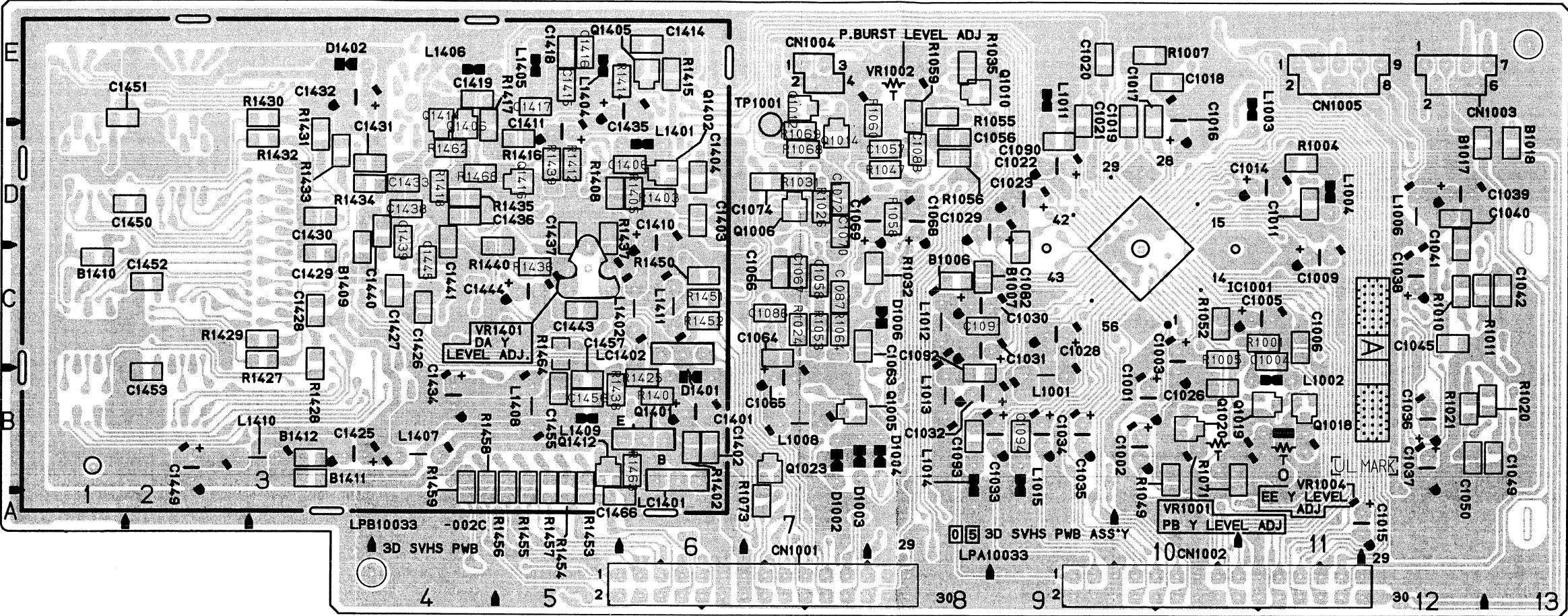


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4.13 3D SVHS CIRCUIT BOARD

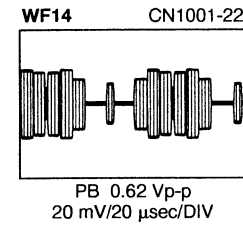
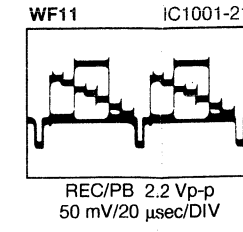
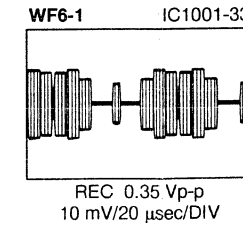
— FOIL SIDE (B) —



COMPONENT PARTS LOCATION GUIDE <3D SVHS>

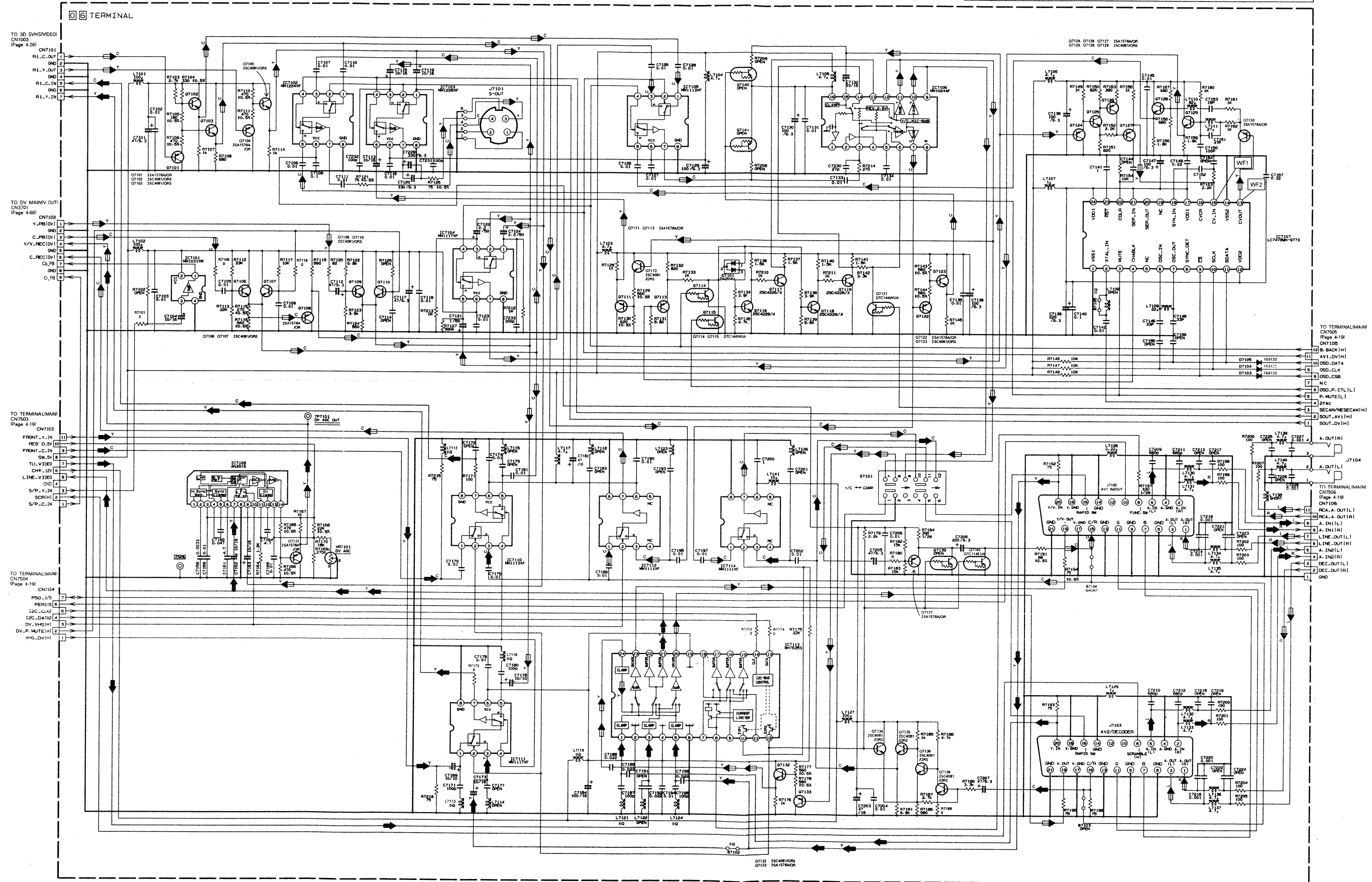
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CAPACITOR																			
C1001	A D 10B	C1033	A D 9B	C1074	B C 7D	C1419	B C 4E	C1451	B C 1E	D1003	A D 7B	L1408	A D 5B	Q1410	A C 5B	R1025	A C 7D	R1069	B C 7D
C1002	A D 10B	C1034	A D 9B	C1075	A C 10A	C1420	A C 5D	C1452	B C 2C	D1004	A D 8B	L1409	A D 5B	Q1411	A C 5C	R1026	B C 7D	R1070	A C 10D
C1003	A D 10C	C1035	A D 9B	C1076	A C 10A	C1421	A C 5E	C1453	B C 2B	D1006	A D 8C	L1410	A D 3B	Q1412	B C 5B	R1027	A C 7D	R1071	A C 11B
C1004	B C 11C	C1036	A D 12B	C1082	B C 9D	C1422	A C 4E	C1454	A C 6B	D1001	A D 6B	L1411	A D 6C	Q1413	A C 6D	R1028	A C 7D	R1072	A C 7D
C1005	A D 11C	C1037	A D 12B	C1086	B C 7C	C1423	A C 4E	C1455	B C 5B	D1402	A D 3E	TRANSISTOR				Q1029	A C 7D	R1073	B C 7A
C1006	B C 11C	C1038	A D 12C	C1087	B C 7C	C1424	A C 5D	C1456	B C 5B	IC				Q1414	B C 4D	R1030	A C 7D	R1401	B C 6B
C1007	A C 10C	C1039	A D 12D	C1088	B C 8D	C1425	A D 3B	C1457	B C 5B	IC1001	B C 10D	Q1001	A C 11D	Q1416	B C 5D	R1031	B C 7D	R1402	B C 6B
C1008	A C 9D	C1040	B C 12D	C1089	A C 7E	C1426	B C 4C	C1458	A C 5C	IC1002	A C 12C	Q1004	A C 8B	Q1417	A C 4D	R1032	B C 8C	R1403	B C 6D
C1009	A D 11C	C1041	B C 12D	C1090	B C 9D	C1427	B C 4C	C1459	A C 6E	IC1006	A C 7C	Q1005	B C 7B	Q1418	A C 4E	R1033	B C 8E	R1404	A C 6D
C1010	A C 10D	C1042	B C 13C	C1091	B C 8C	C1428	B C 3C	C1460	A C 6E	IC1007	A C 8D	Q1006	B C 7D	RESISTOR				R1405	B C 6D
C1011	B C 11D	C1043	A C 12C	C1092	B C 8B	C1429	B C 3C	C1461	A C 6D	IC1008	A C 8D	Q1007	A C 7D	R1001	B C 11C	R1036	A C 9E	R1406	A C 6D
C1012	A C 11D	C1044	A C 13C	C1093	B C 8B	C1430	B C 3D	C1462	A C 6C	IC1009	A C 8D	Q1008	A C 8E	R1002	A C 10C	R1037	A C 7A	R1407	A C 6D
C1013	A C 9C	C1045	B C 12C	C1094	B C 9B	C1431	B C 3D	C1463	A C 6C	IC1401	A C 4D	Q1009	A C 8E	R1003	A C 10D	R1038	A C 9C	R1408	A C 6D
C1014	A D 11D	C1046	A C 13C	C1095	A C 10D	C1432	A D 3E	C1464	A C 6C	IC1402	A C 2D	Q1010	B C 8E	R1004	A C 11D	R1039	A C 9C	R1409	A C 6D
C1015	A D 12A	C1047	A C 12B	C1401	A D 6B	C1433	B C 4D	C1465	A C 6C	IC1403	A C 2C	Q1011	B C 8E	R1005	B C 10C	R1045	A C 8D	R1410	A C 6D
C1016	A D 10D	C1048	A C 13B	C1402	B C 6B	C1434	A D 4B	C1466	B C 6A	COIL				R1006	A C 10B	R1046	A C 8D	R1411	A C 5D
C1017	B C 10E	C1049	B C 13B	C1403	B C 6D	C1435	A D 5E	C1467	A C 5B	L1001	A D 9B	Q1012	B C 7E	R1007	B C 10E	R1047	A C 8D	R1412	A C 5D
C1018	B C 10E	C1050	B C 12B	C1404	B C 6D	C1436	B C 4D	C1468	A C 5B	L1002	A D 11B	Q1013	A C 7E	R1008	A C 10B	R1048	A C 8D	R1413	A C 5D
C1019	B C 10E	C1051	B C 8D	C1405	A C 6D	C1437	B C 5D	C1469	A C 5B	L1003	A D 11D	Q1014	B C 7D	R1009	A C 9C	R1049	B C 10B	R1414	B C 5D
C1020	B C 9E	C1052	B C 8D	C1406	B C 6D	C1438	B C 4D	C1470	A C 5B	L1004	A D 11D	Q1015	A C 7E	R1010	A C 10B	R1052	B C 10C	R1415	B C 6E
C1021	B C 9E	C1053	B C 7C	C1407	A C 5D	C1439	B C 4D	C1471	A C 5B	L1005	A D 12D	Q1016	A C 10C	R1011	B C 12C	R1053	B C 7C	R1416	B C 5D
C1022	A D 9D	C1054	B C 7C	C1408	A C 5D	C1440	B C 4D	C1472	A C 5B	L1006	A D 7B	Q1017	B C 11B	R1012	A C 12C	R1054	A C 7D	R1417	B C 4D
C1023	A D 9D	C1055	B C 7C	C1409	A C 6D	C1441	B C 4D	C1473	A C 4B	L1007	A D 8C	Q1018	B C 11B	Q1022	A C 13C	R1055	B C 8E	R1418	B C 4D
C1024	A C 9C	C1056	B C 7C	C1410	A D 6D	C1442	A C 5D	CONNECTOR				Q1019	B C 11B	Q1023	A C 7B	R1056	B C 8D	R1419	A C 4D
C1026	B C 10B	C1057	B C 7C	C1411	A D 5D	C1443	B C 5C	DIODE				Q1020	B C 10B	Q1401	A D 6B	R1057	B C 8D	R1420	A C 5E
C1027	A C 10D	C1058	B C 7C	C1412	A C 5D	C1444	A D 5C	CN1001	A D 6A	D1002	A D 7B	Q1021	A C 9E	Q1402	B C 6D	R1058	B C 8E	R1421	A C 4E
C1028	A D 9C	C1059	B C 7C	C1413	A C 6E	C1445	B C 4C	CN1002	A D 9A	L1401	A D 6D	Q1022	A C 7E	Q1403	A C 6D	R1059	B C 8E	R1422	A C 4E
C1029	A D 9D	C1060	B C 7C	C1414	B C 6E	C1446	A C 4C	CN1003	A D 12E	L1402	A D 6C	Q1023	A C 7E	Q1404	A C 5D	R1060	B C 8E	R1423	A C 4D
C1030	A D 8C	C1061	B C 7C	C1415	B C 5E	C1447	A C 4C	CN1004	A D 7E	L1403	A D 6C	Q1024	A C 7E	Q1405	B C 6E	R1061	A C 8C	R1424	A C 5B
C1031	A D 9C	C1062	B C 7C	C1416	B C 5E	C1448	A C 4C	CN1005	A D 11E	L1404	A D 5E	Q1025	A C 7E	Q1406	B C 4D	R1062	A C 8C	R1425	B C 6B
C1032	A D 9B	C1063	B C 7C	C1417	B C 5E	C1449	A D 2B	OTHER				Q1407	A C 4E	Q1408	A C 4D	R1063	A C 7D	R1426	A C 3B
		C1064	A D 7B	C1418	B C 5E	C1450	B C 2D	LC1401	A D 6B			Q1409	A C 6B			R1064	B C 7D	R1427	B C 3C
		C1065	A D 7D					LC1402	A D 6C							R1065	A C 7C		
		C1066	A D 7D					TP1001	A D 7E							R1066	A C 7C		
		C1067	A D 7D													R1067	A C 7C		
		C1068	A D 7D													R1068	A C 7C		
		C1069	A D 7D																
		C1070	A D 7D																
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		C1072	A D 7D																
		C1073	A D 7D																

— 3D SVHS(VIDEO) —



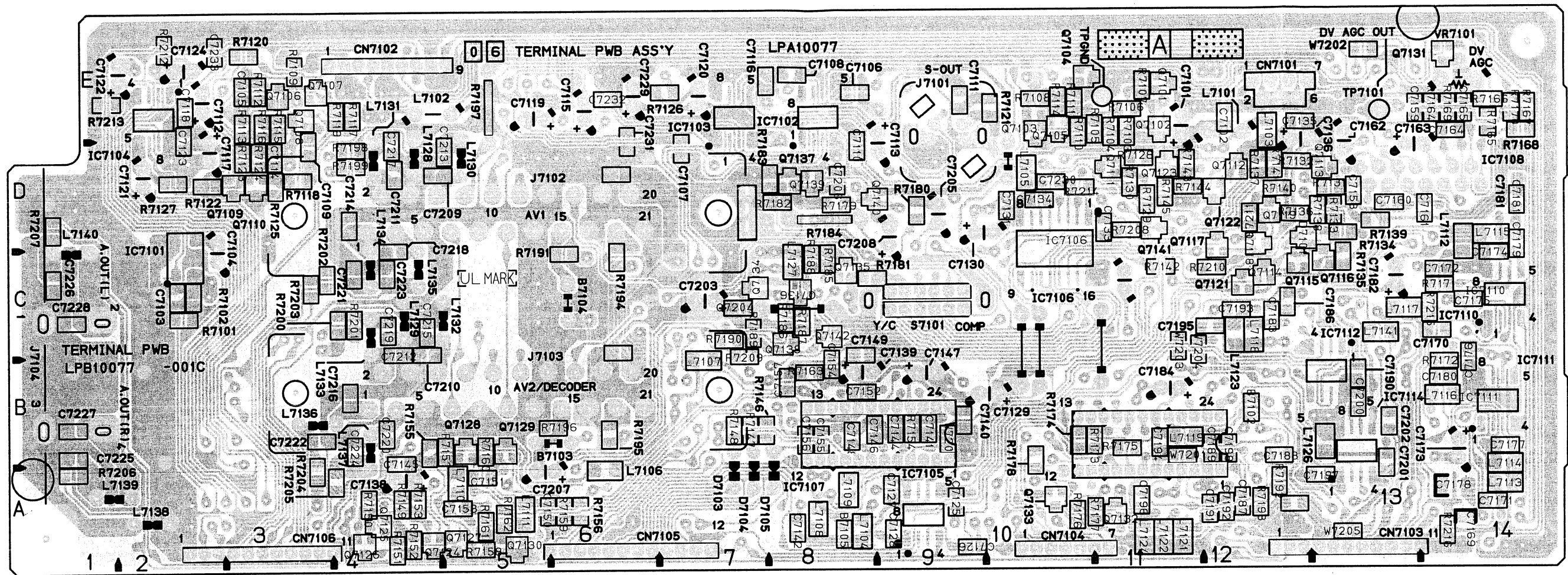
4.14 TERMINAL SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



NOTE : For TERMINAL waveforms, please refer to page 4-36.

4.15 TERMINAL CIRCUIT BOARD

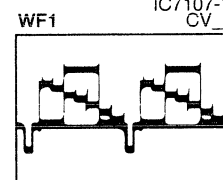


COMPONENT PARTS LOCATION GUIDE <TERMINAL>

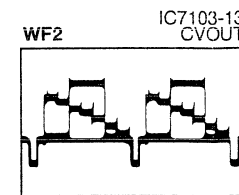
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WAVEFORMS

— TERMINAL —



REC/PB 2.7 Vp-p
50 mV/20 μ sec/DIV



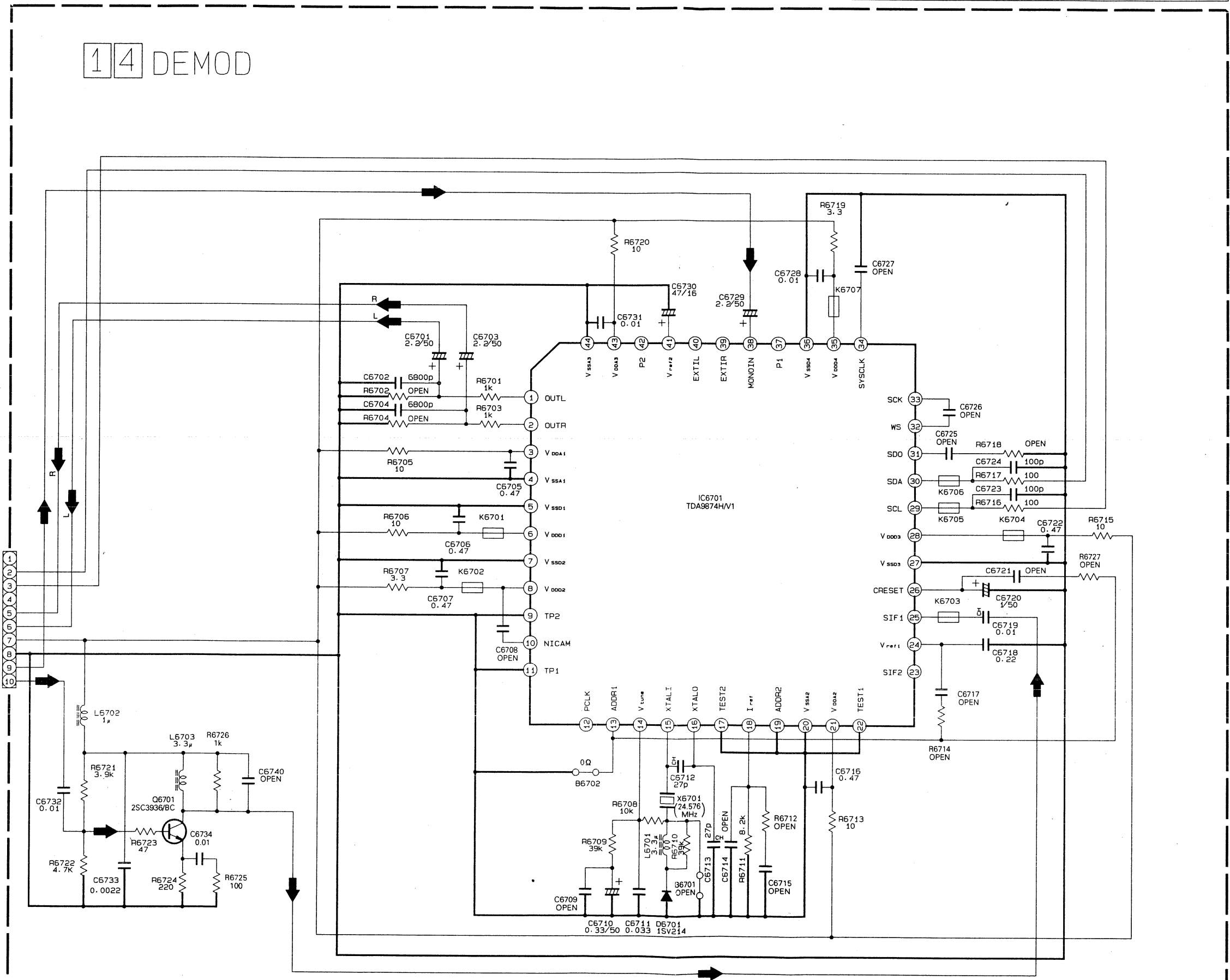
REC/PB 2.7 Vp-p
50 mV/20 μ sec/DIV

4.16 DEMODULATOR SCHEMATIC DIAGRAM

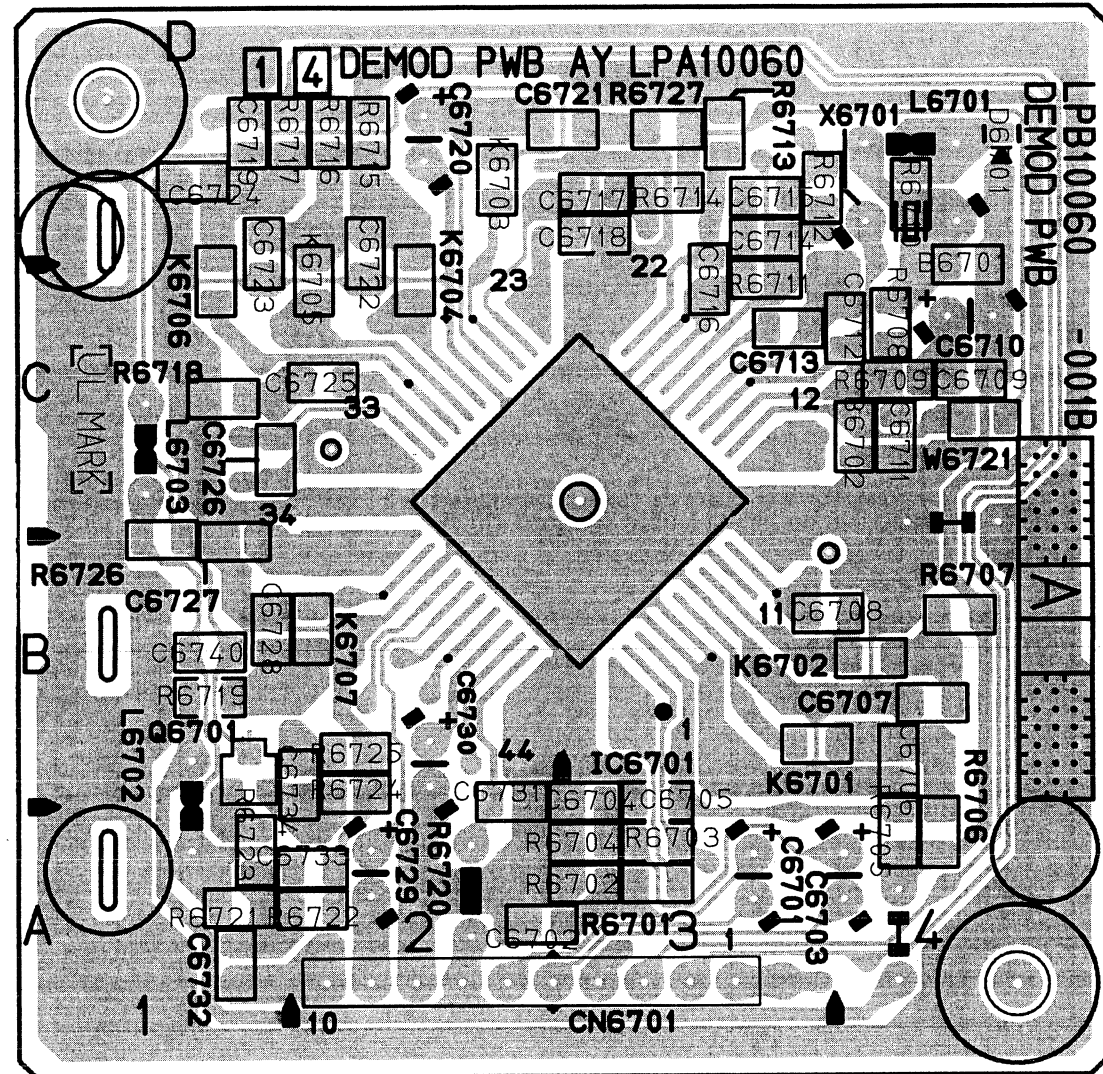
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

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CN6701
(Page 4-18)



4.17 DEMODULATOR CIRCUIT BOARD

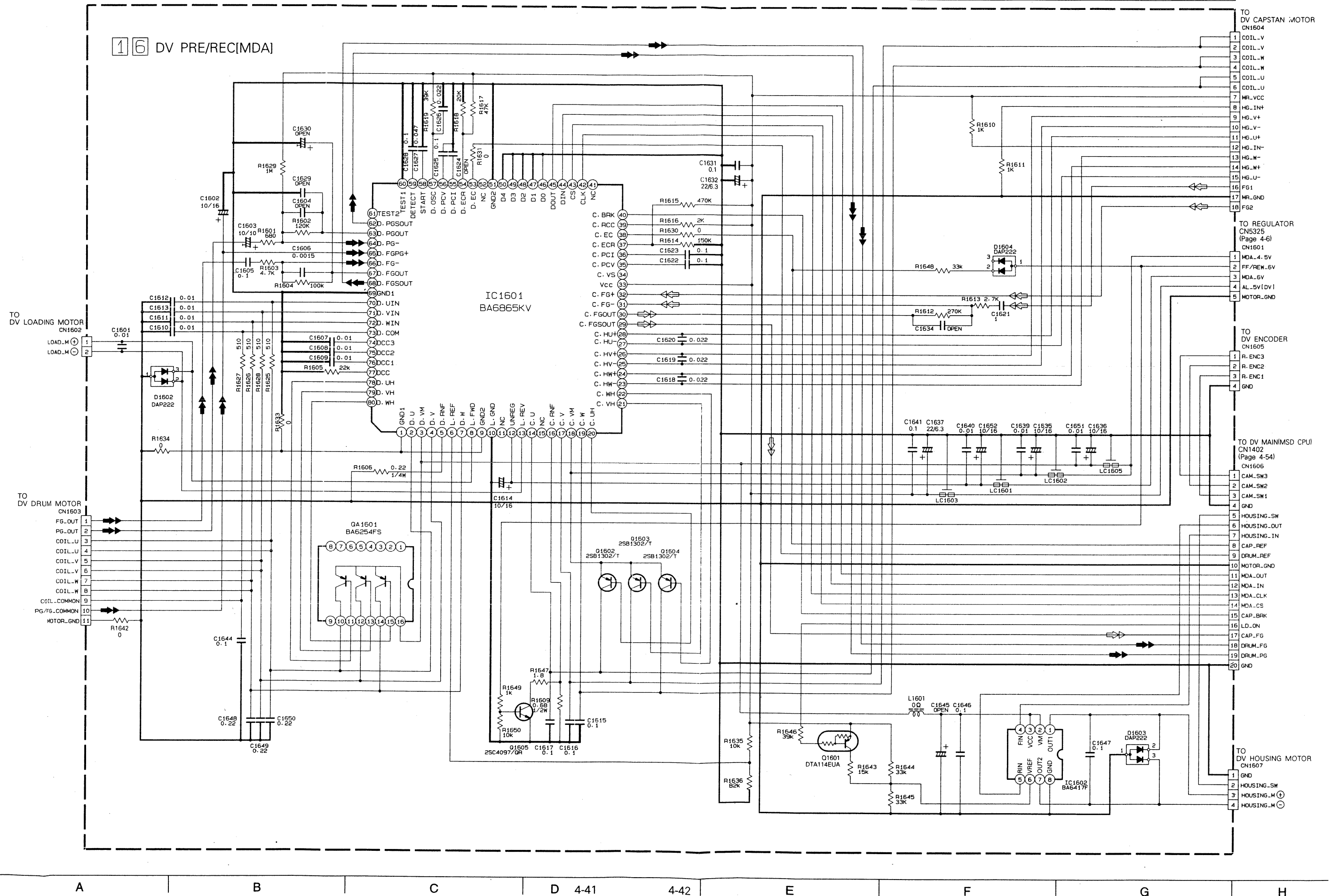


COMPONENT PARTS LOCATION GUIDE <DEMODULATOR>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C6719	B C 1D	CONNECTOR		RESISTOR		R6719	B C 1B
C6701	A D 3A	C6720	A D 2D	CN6701	A D 3A	R6701	B C 3A	R6720	A D 2A
C6702	B C 2A	C6721	B C 3D	DIODE		R6702	B C 3A	R6721	B C 1A
C6703	A D 4A	C6722	B C 2D	D6701		R6703	B C 3A	R6722	B C 2A
C6704	B C 3B	C6723	B C 1D	IC		R6704	B C 3A	R6723	B C 1A
C6705	B C 3B	C6724	B C 1D	IC6701		R6705	B C 4A	R6724	B C 2B
C6706	B C 4B	C6725	B C 2C	COIL		R6706	B C 4A	R6725	B C 2B
C6707	B C 4B	C6726	B C 1C	L6701		R6707	B C 4B	R6726	B C 1B
C6708	B C 3B	C6727	B C 1B	L6702		R6708	B C 4C	R6727	B C 3D
C6709	B C 4C	C6728	B C 1B	L6703		R6709	B C 4C	OTHER	
C6710	A D 4C	C6729	A D 2A	TRANSISTOR		R6710	B C 4D	K6701	B C 3B
C6711	B C 4C	C6730	A D 2B	Q6701		R6711	B C 3C	K6702	B C 4B
C6712	B C 4C	C6731	B C 2B			R6712	B C 3D	K6703	B C 2D
C6713	B C 3C	C6732	B C 1A			R6713	B C 3D	K6704	B C 2C
C6714	B C 3D	C6733	B C 2A			R6714	B C 3D	K6705	B C 2C
C6715	B C 3D	C6734	B C 2B			R6715	B C 2D	K6706	B C 1C
C6716	B C 3C					R6716	B C 2D	K6707	B C 2B
C6717	B C 3D					R6717	B C 2D	X6701	A D 4D
C6718	B C 3D					R6718	B C 1C		

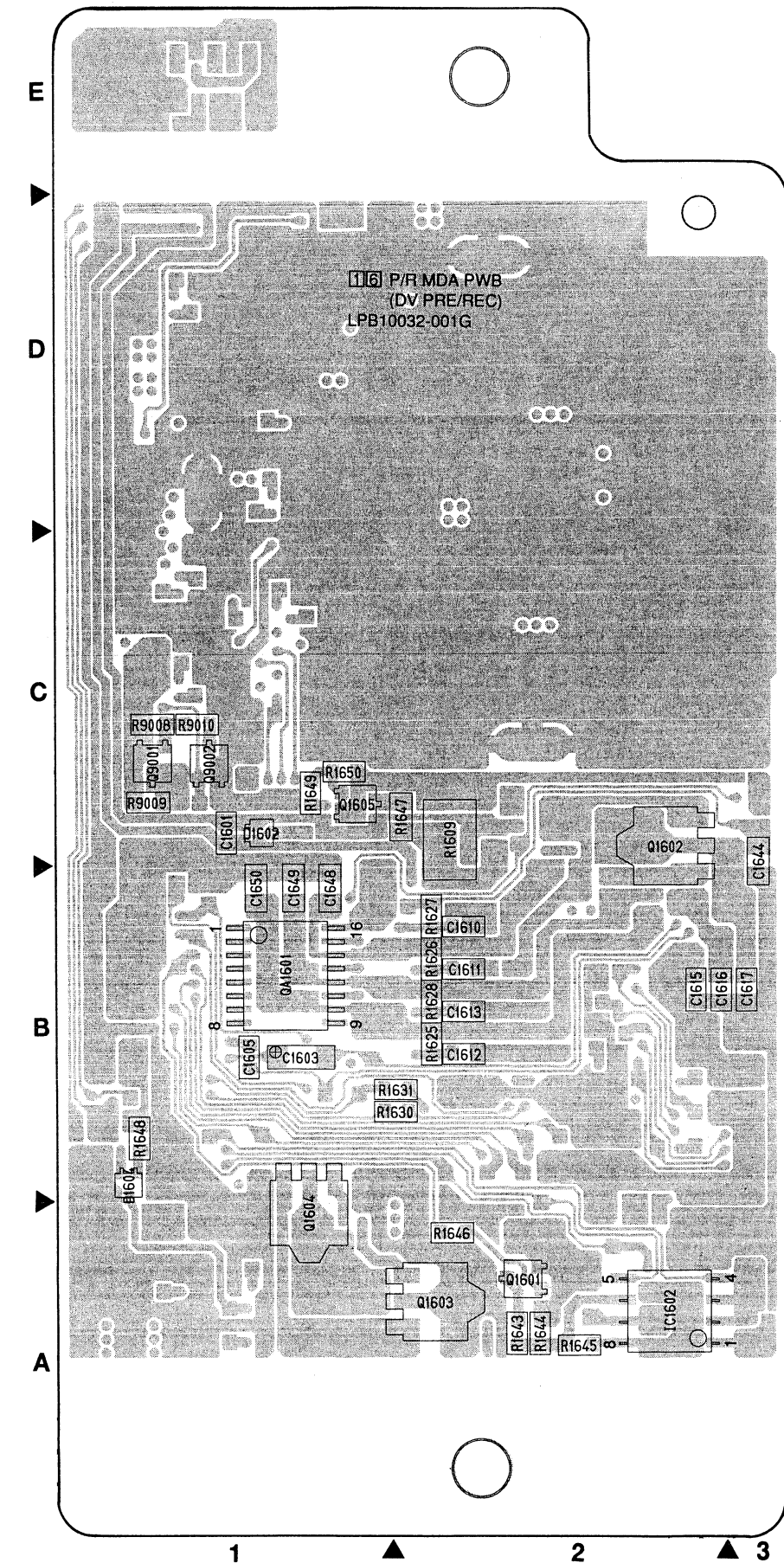
4.18 MDA SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4.19 MDA CIRCUIT BOARD

— FOIL SIDE (B) —

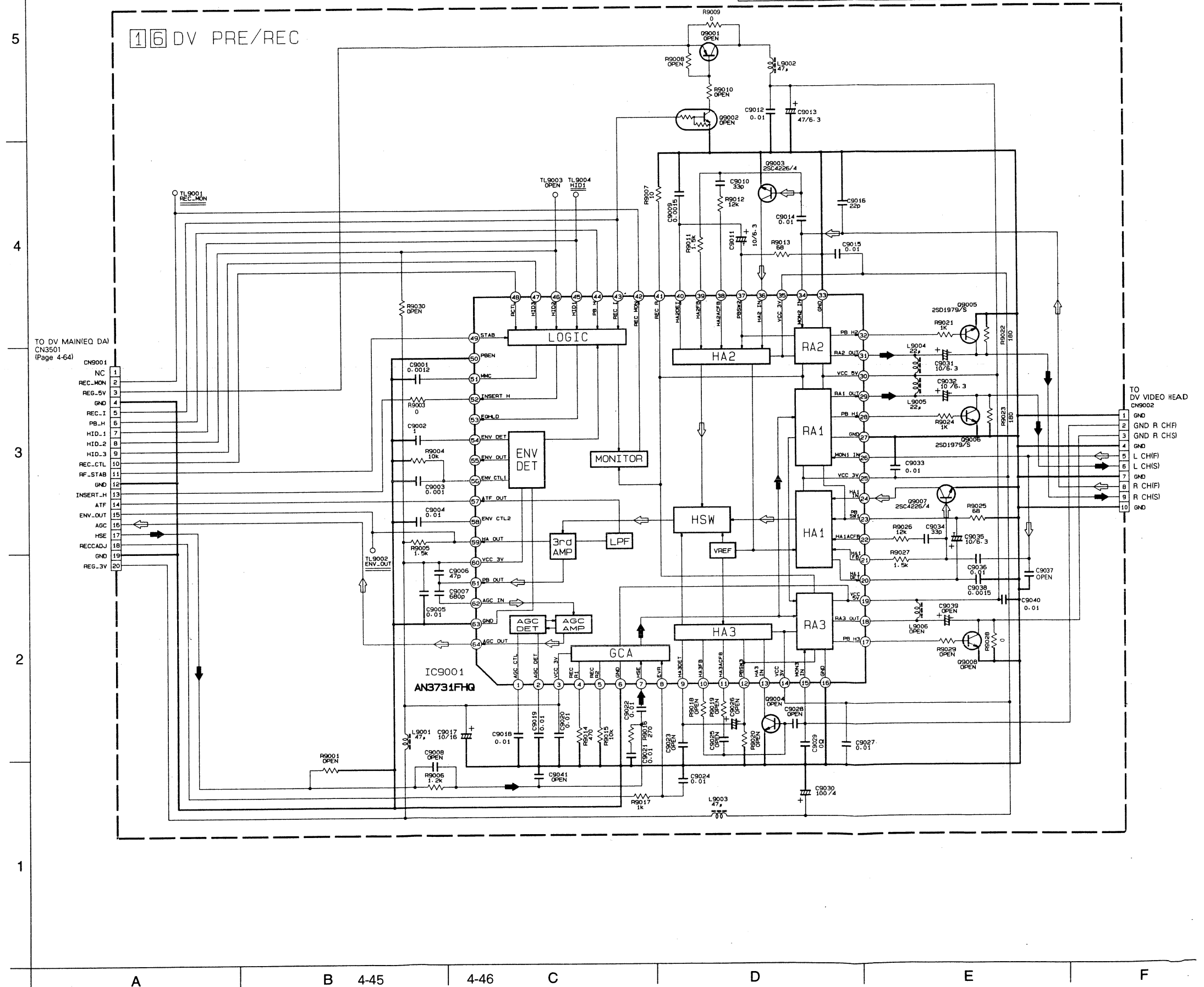


4.20 DV PRE/REC SCHEMATIC DIAGRAM

COMPONENT PARTS LOCATION GUIDE <DV PRE/REC>

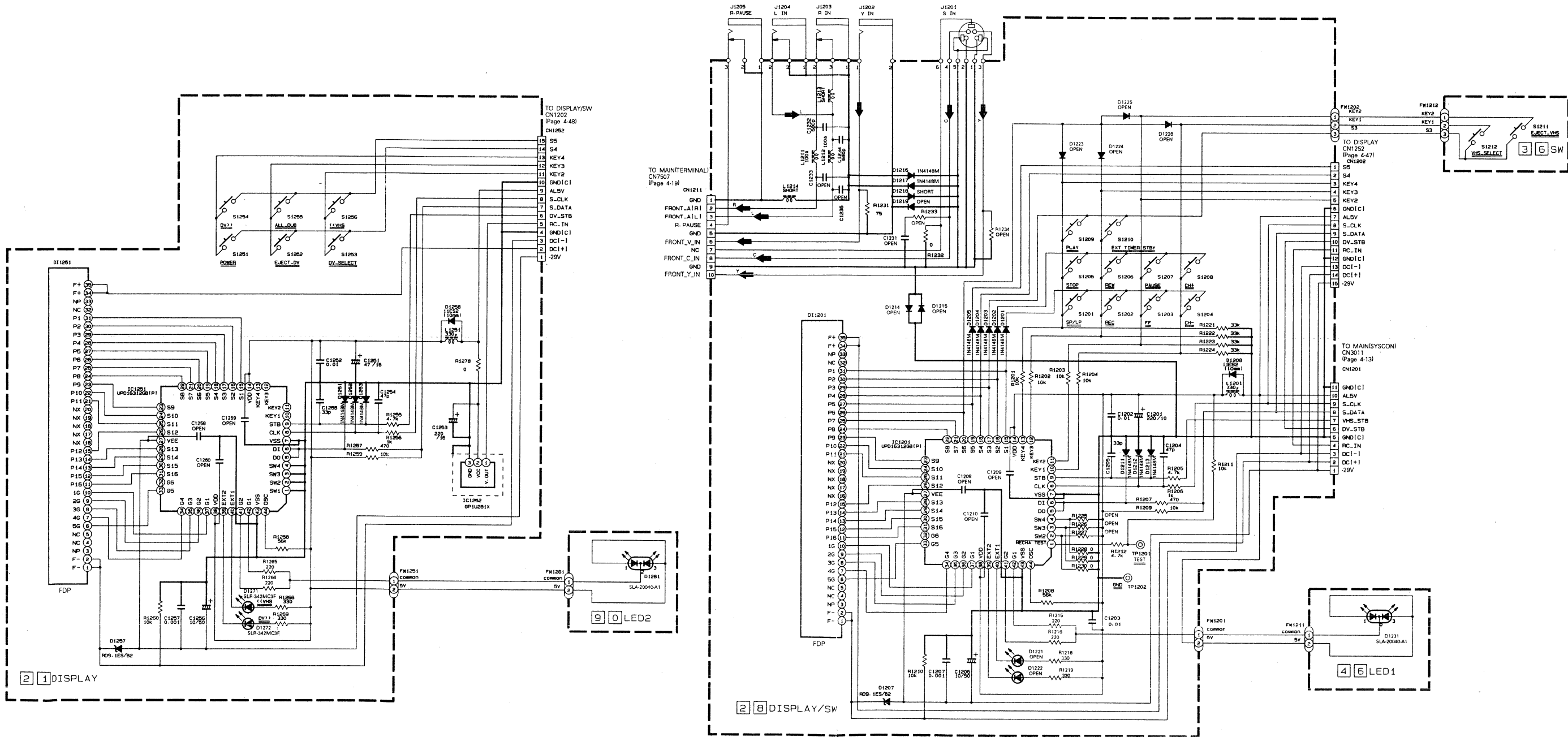
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CAPACITOR					
C1601	B C 1C	C9035	A C 2D	R1633	A C 1B
C1602	A C 1B	C9036	A C 2D	R1634	A C 1C
C1603	A C 1B	C9037	A C 2D	R1635	A C 2B
C1604	A C 1B	C9038	A C 2D	R1636	A C 2B
C1605	A C 1B	C9039	A C 2D	R1642	A C 2C
C1606	A C 1B	C9040	A C 2D	R1643	A C 2A
C1607	A C 1B	C9041	A C 1D	R1644	A C 2A
C1608	A C 1B	CONNECTOR			
C1609	A C 1B	CN1	A C 2G	R1645	A C 2A
C1610	B C 2B	CN2	A C 1E	R1646	A C 2A
C1611	B C 2B	CN3	B C 1E	R1647	A C 2C
C1612	B C 2B	CN1601	A C 1A	R1648	A C 1B
C1613	B C 2B	CN1602	A C 1E	R1649	A C 1C
C1614	A C 2C	CN1603	A C 2B	R1650	A C 1C
C1615	B C 2B	CN1604	A C 2B	R9001	A C 1D
C1616	B C 2B	CN1605	A C 1E	R9003	A C 1C
C1617	B C 3B	CN1606	A C 1B	R9004	A C 1C
C1618	A C 2B	CN1607	A C 2A	R9005	A C 1D
C1619	A C 2B	CN9001	A C 1C	R9006	A C 1D
C1620	A C 2B	CN9002	A C 2D	R9007	A C 1C
C1621	A C 2B	DIODE			
C1622	A C 2B	D1602	B C 1C	R9008	A C 1C
C1623	A C 2B	D1603	A C 2A	R9009	A C 1C
C1624	A C 2B	D1604	B C 1B	R9010	A C 1C
C1625	A C 2B	IC			
C1626	A C 1B	IC1601	A C 2B	R9011	A C 2C
C1627	A C 1B	IC1602	B C 2A	R9012	A C 2C
C1628	A C 1B	IC9001	A C 1D	R9013	A C 2C
C1629	A C 1B	JACK			
C1630	A C 1B	J8001	A D 1G	R9014	A C 1D
C1631	A C 2A	COIL			
C1632	A C 2B	L1601	A C 2A	R9015	A C 1D
C1633	A C 1A	L9001	A C 1D	R9016	A C 1D
C1634	A C 1A	L9002	A C 1C	R9017	A C 2D
C1635	A C 1A	L9003	A C 1D	R9018	A C 2D
C1636	A C 1A	L9004	A C 2C	R9019	A C 2D
C1637	A C 1A	L9005	A C 2C	R9020	A C 2D
C1638	A C 1A	L9006	A C 2C	R9021	A C 2C
C1639	A C 1A	TRANSISTOR			
C1640	A C 1A	Q1601	B C 2A	R9022	A C 2C
C1641	A C 2A	Q1602	B C 2C	R9023	A C 2C
C1642	A C 2A	Q1603	B C 2A	R9024	A C 2C
C1643	A C 2A	Q1604	B C 1A	R9025	A C 2D
C1644	A C 2A	Q1605	B C 1C	R9026	A C 2D
C1645	A C 2A	Q9001	B C 1C	R9027	A C 2D
C1646	A C 2A	Q9002	B C 1C	R9028	A C 2D
C1647	A C 2A	Q9003	A C 2C	R9029	A C 2D
C1648	B C 1B	Q9004	A C 2D	R9030	A C 1C
C1649	B C 1B	Q9005	A C 2C	TEST POINT	
C1650	B C 1B	Q9006	A C 2C	TP1	A C 2F
C1651	A C 1A	Q9007	A C 2D	TP2	A C 2F
C1652	A C 2A	Q9008	A C 2D	TP3	A C 2F
C9001	A C 1C	Q9009	A C 2D	TP4	A C 2F
C9002	A C 1C	QA1601	B C 1B	TP5	A C 2F
C9003	A C 1C	RESISTOR			
C9004	A C 1C	R1601	A C 1B	TP6	A C 2F
C9005	A C 1D	R1602	A C 1B	TP7	A C 2F
C9006	A C 1D	R1603	A C 1B	TP8	A C 2F
C9007	A C 1D	R1604	A C 1B	TP9	A C 2F
C9008	A C 1D	R1605	A C 1B	TP10	A C 2F
C9009	A C 1D	R1606	A C 1C	TP11	A C 2F
C9010	A C 2C	R1609	B C 2C	TP12	A C 1F
C9011	A C 2C	R1610	A C 2B	TP13	A C 1F
C9012	A C 1C	R1611	A C 2B	TP14	A C 2F
C9013	A C 1C	R1612	A C 2B	TP15	A C 2F
C9014	A C 2C	R1613	A C 2B	TP16	A C 2F
C9015	A C 2C	R1614	A C 2B	TP17	A C 2F
C9016	A C 2C	R1615	A C 2B	TP18	A C 2F
C9017	A C 1D	R1616	A C 2B	TP19	A C 2F
C9018	A C 1D	R1617	A C 2B	TP20	A C 2F
C9019	A C 1D	R1618	A C 2B	TP21	A C 2F
C9020	A C 1D	R1619	A C 2B	TP22	A C 2F
C9021	A C 2D	R1620	A C 2B	TP23	A C 2F
C9022	A C 1D	R1621	A C 2B	TP24	A C 2F
C9023	A C 2C	R1622	A C 2B	TP25	A C 1F
C9024	A C 2C	R1623	A C 2B	TP26	A C 1F
C9025	A C 2C	R1624	A C 2B	OTHER	
C9026	A C 2C	R1625	A C 2B	LC1601	A C 1A
C9027	A C 2C	R1626	A C 2B	LC1602	A C 1A
C9028	A C 2C	R1627	A C 2B	LC1603	A C 1A
C9029	A C 2C	R1628	A C 2B	LC1605	A C 1A
C9030	A C 2C	R1629	A C 2B	TL9001	A C 1C
C9031	A C 2C	R1630	A C 2B	TL9002	A C 1E
C9032	A C 2C	R1631	A C 2B	TL9003	A C 1C
C9033	A C 2C			TL9004	A C 1C
C9034	A C 2C				

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4.21 DISPLAY, DISPLAY/SW, SW, LED1 AND LED2 SCHEMATIC DIAGRAMS

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

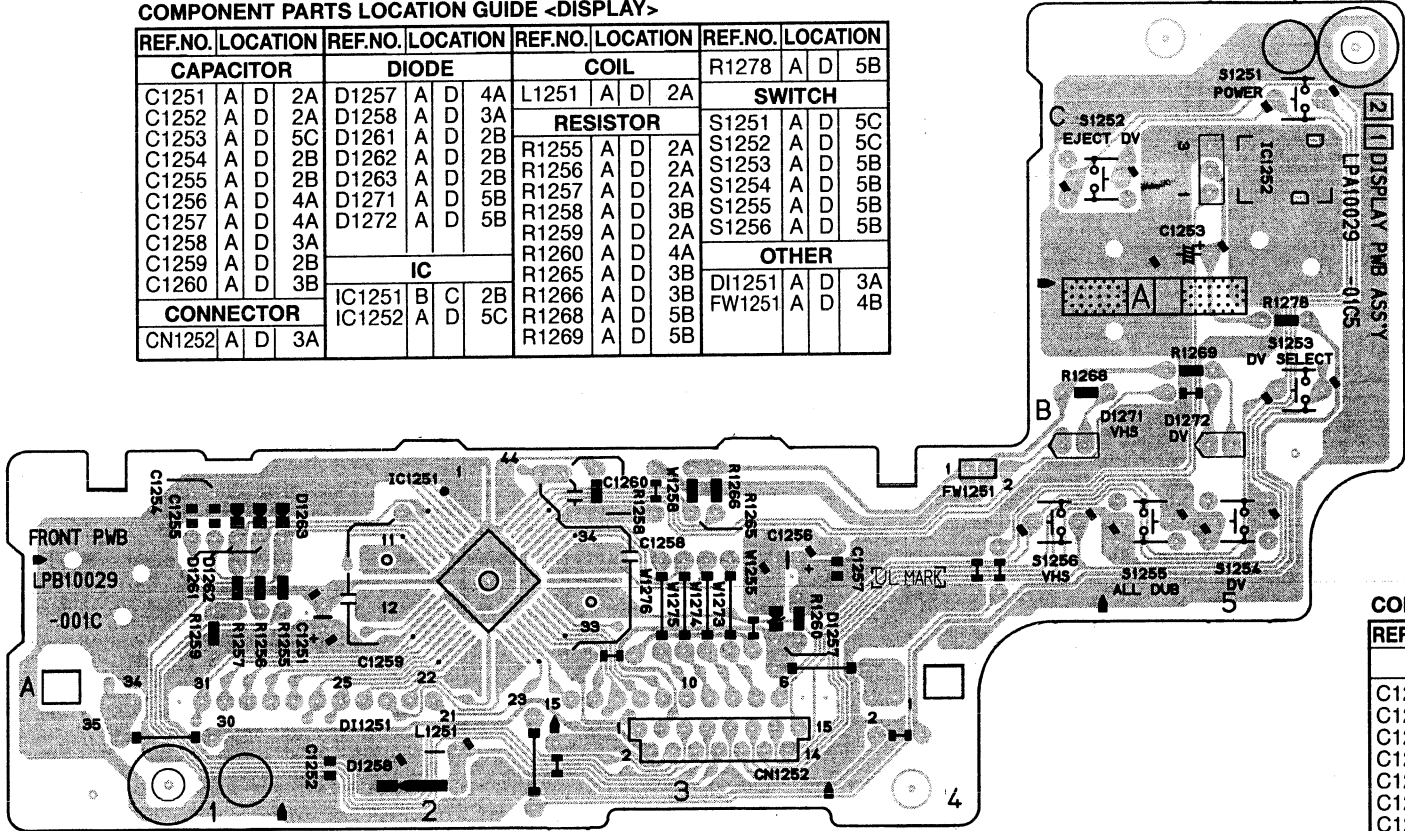


4.22 DISPLAY, DISPLAY/SW, SW, LED1 AND LED2 CIRCUIT BOARDS

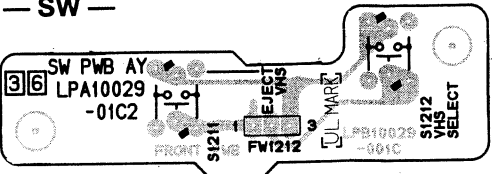
— DISPLAY —

COMPONENT PARTS LOCATION GUIDE <DISPLAY>

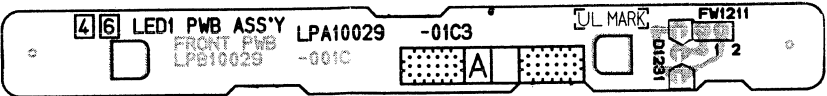
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		DIODE		COIL		R1278 A D 5B	
C1251	A D 2A	D1257	A D 4A	L1251	A D 2A	SWITCH	
C1252	A D 2A	D1258	A D 3A	RESISTOR		S1251	A D 5C
C1253	A D 5C	D1261	A D 2B	R1255	A D 2A	S1252	A D 5C
C1254	A D 2B	D1262	A D 2B	R1256	A D 2A	S1253	A D 5B
C1255	A D 2B	D1263	A D 2B	R1257	A D 2A	S1254	A D 5B
C1256	A D 4A	D1271	A D 5B	R1258	A D 3B	S1255	A D 5B
C1257	A D 4A	D1272	A D 5B	R1259	A D 4A	S1256	A D 5B
C1258	A D 3A	IC		R1260	A D 2A	OTHER	
C1259	A D 2B	IC1251	B C 2B	R1265	A D 3B	DI1251	A D 3A
C1260	A D 3B	IC1252	A D 5C	R1266	A D 3B	FW1251	A D 4B
CONNECTOR				R1268	A D 5B		
CN1252	A D 3A			R1269	A D 5B		



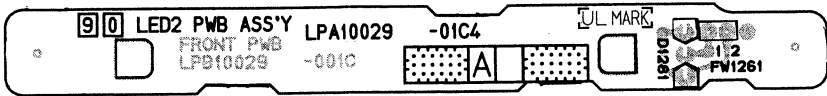
— SW —



— LED1 —



— LED2 —



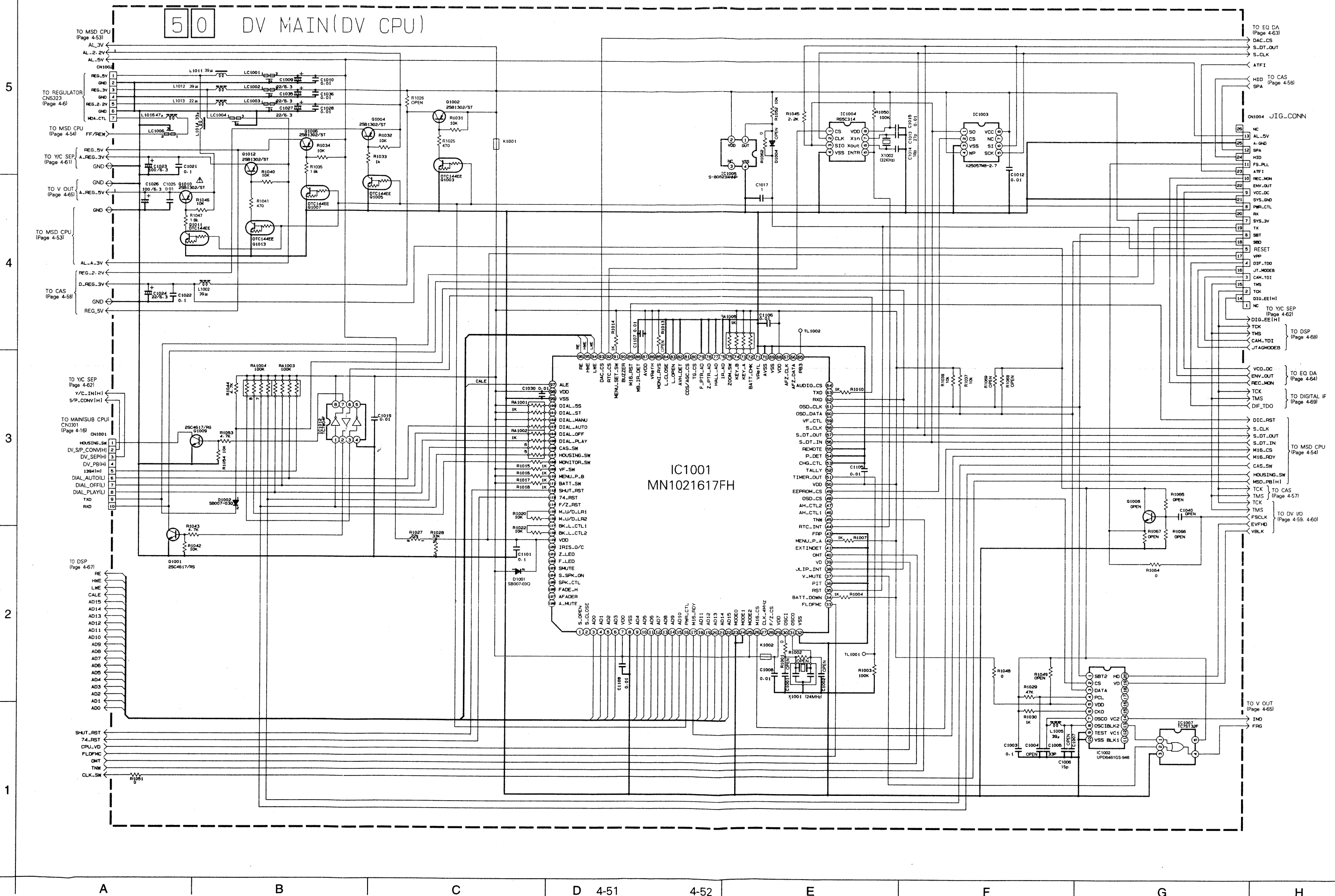
— DISPLAY/SW —

COMPONENT PARTS LOCATION GUIDE <DISPLAY/SW>

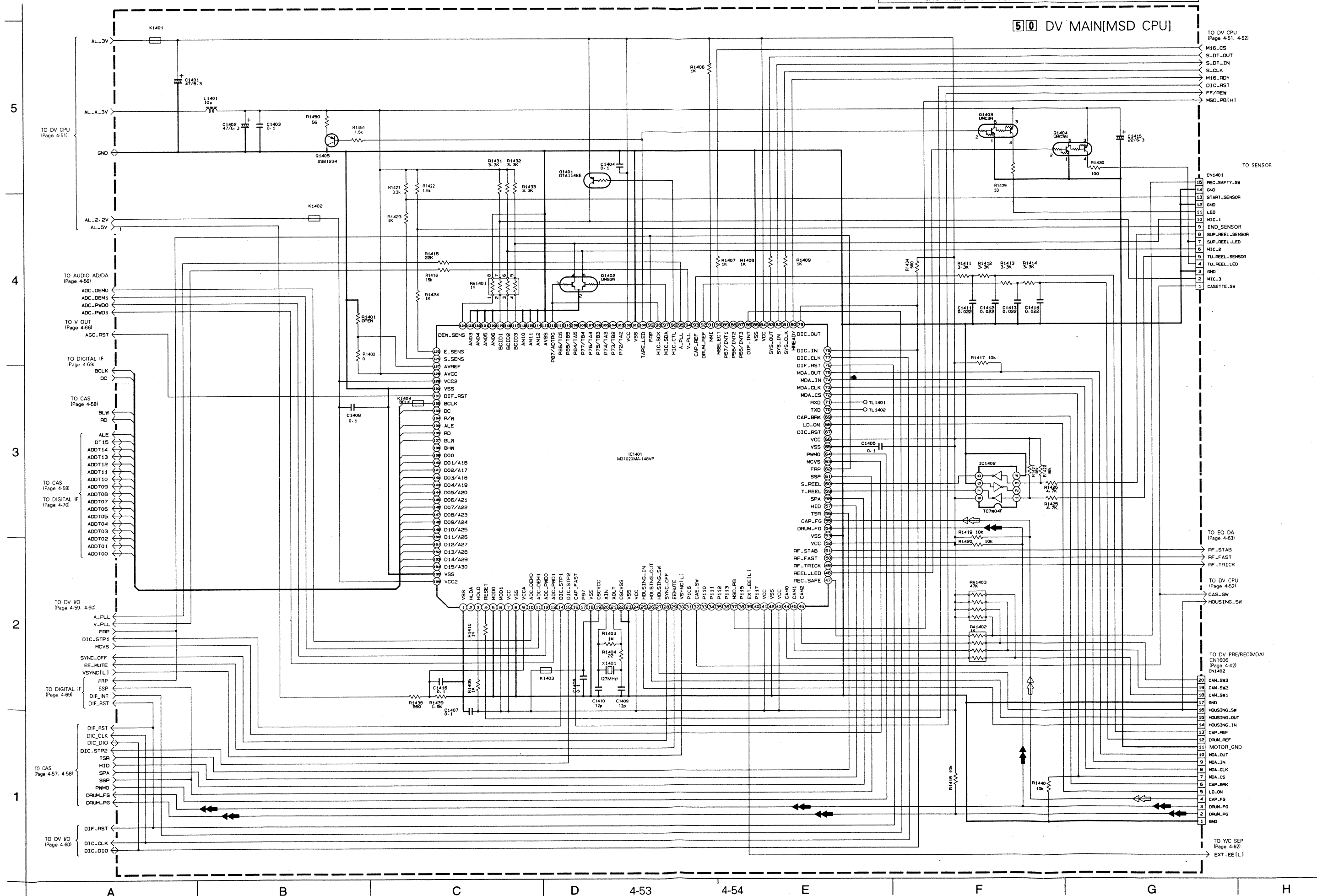
REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION				REF.NO. LOCATION			
CAPACITOR				CN1202	A	D	6A	D1219	A	D	2A	COIL				R1212	A	D	4B	SWITCH			
C1201	A	D	4B	CN1211	A	D	2B	D1221	A	D	8C	L1201	A	D	4B	R1215	A	D	6B	S1201	A	D	8A
C1202	A	D	5B	DIODE				D1222	A	D	8C	L1211	A	D	1A	R1216	A	D	6B	S1202	A	D	8A
C1203	A	D	6B	D1201	A	D	3A	D1223	A	D	4A	L1212	A	D	2A	R1218	A	D	8B	S1203	A	D	7A
C1204	A	D	3A	D1202	A	D	3A	D1224	A	D	4A	L1213	A	D	1A	R1219	A	D	8B	S1204	A	D	6A
C1205	A	D	3A	D1203	A	D	3A	D1225	A	D	4A	L1214	A	D	2B	R1221	A	D	7A	S1205	A	D	8B
C1206	A	D	7A	D1204	A	D	3A	D1226	A	D	4A	RESISTOR				R1222	A	D	7A	S1206	A	D	8B
C1207	A	D	7A	D1205	A	D	3A	D1231	A	D	5B	R1201	A	D	3A	R1223	A	D	7A	S1207	A	D	7B
C1208	A	D	4A	D1206	A	D	3A	D1258	A	D	2D	R1202	A	D	3A	R1224	A	D	7A	S1208	A	D	6B
C1209	A	D	4B	D1207	A	D	5A	IC				R1203	A	D	4A	R1225	A	D	3B	S1209	A	D	8C
C1210	A	D	5B	D1208	A	D	4B	JACK				R1204	A	D	4A	R1226	A	D	3B	S1210	A	D	8C
C1231	A	D	2B	D1211	A	D	3A	CONNECTOR				R1205	A	D	3A	R1227	A	D	3B				
C1232	A	D	1A	D1212	A	D	3A	J1201	A	D	1B	R1206	A	D	3A	R1228	A	D	3B				
C1233	A	D	1A	D1213	A	D	3A	J1202	A	D	2A	R1207	A	D	3A	R1229	A	D	3B	DI1201	A	D	4A
C1234	A	D	2A	D1214	A	D	3B	J1203	A	D	1A	R1208	A	D	5B	R1230	A	D	3B	FW1201	A	D	6B
C1235	A	D	2A	D1215	A	D	3A	J1204	A	D	1A	R1209	A	D	4B	R1231	A	D	2B	TP1201	A	D	7B
CONNECTOR				D1216	A	D	2B	J1205	A	D	1B	R1210	A	D	7A	R1232	A	D	1B	TP1202	A	D	7B
CN1201	A	D	3B	D1217	A	D	2B					R1211	A	D	4B	R1233	A	D	2B				
				D1218	A	D	2A									R1234	A	D	2B				

4.23 DV CPU SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

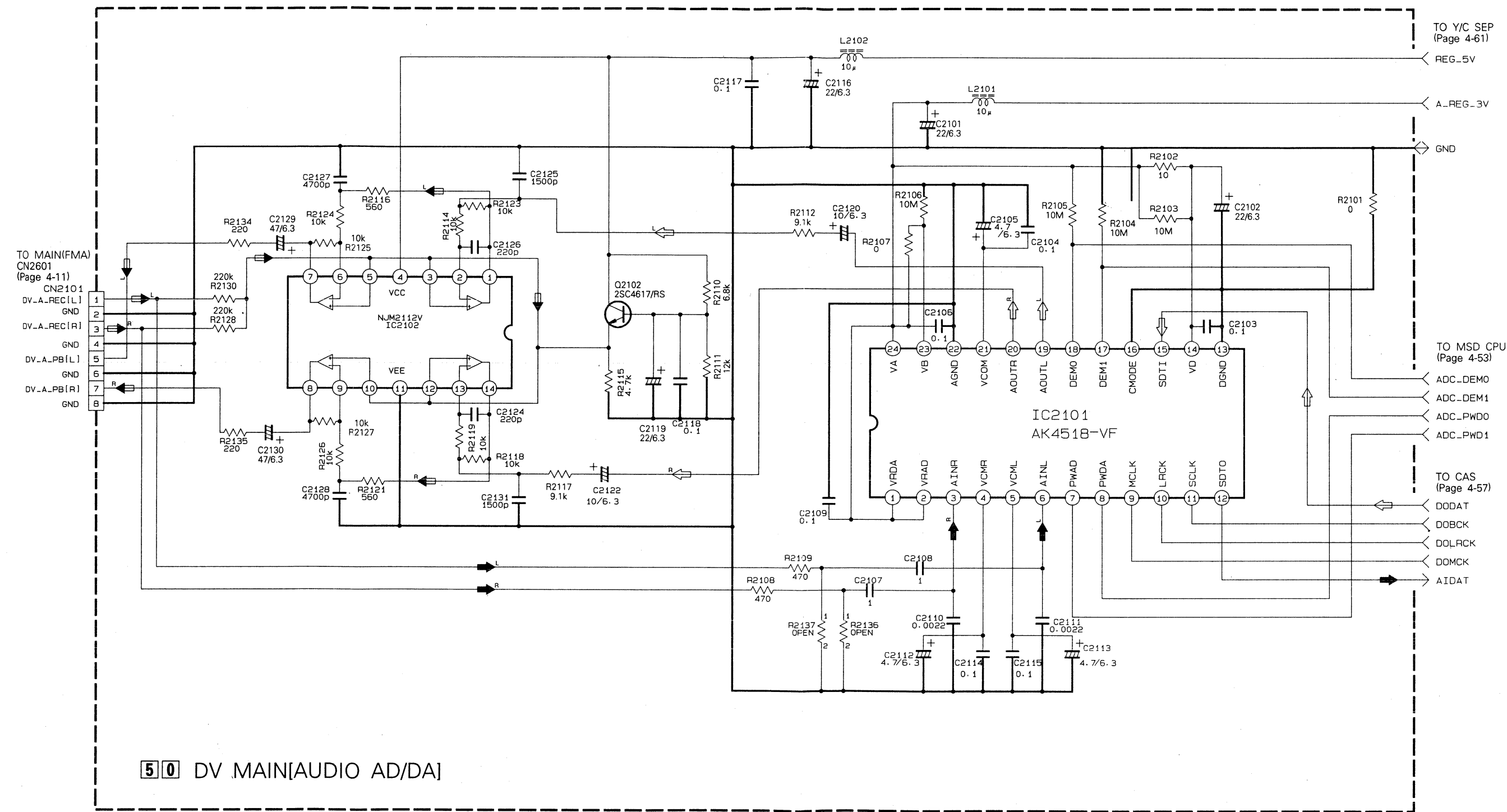


NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

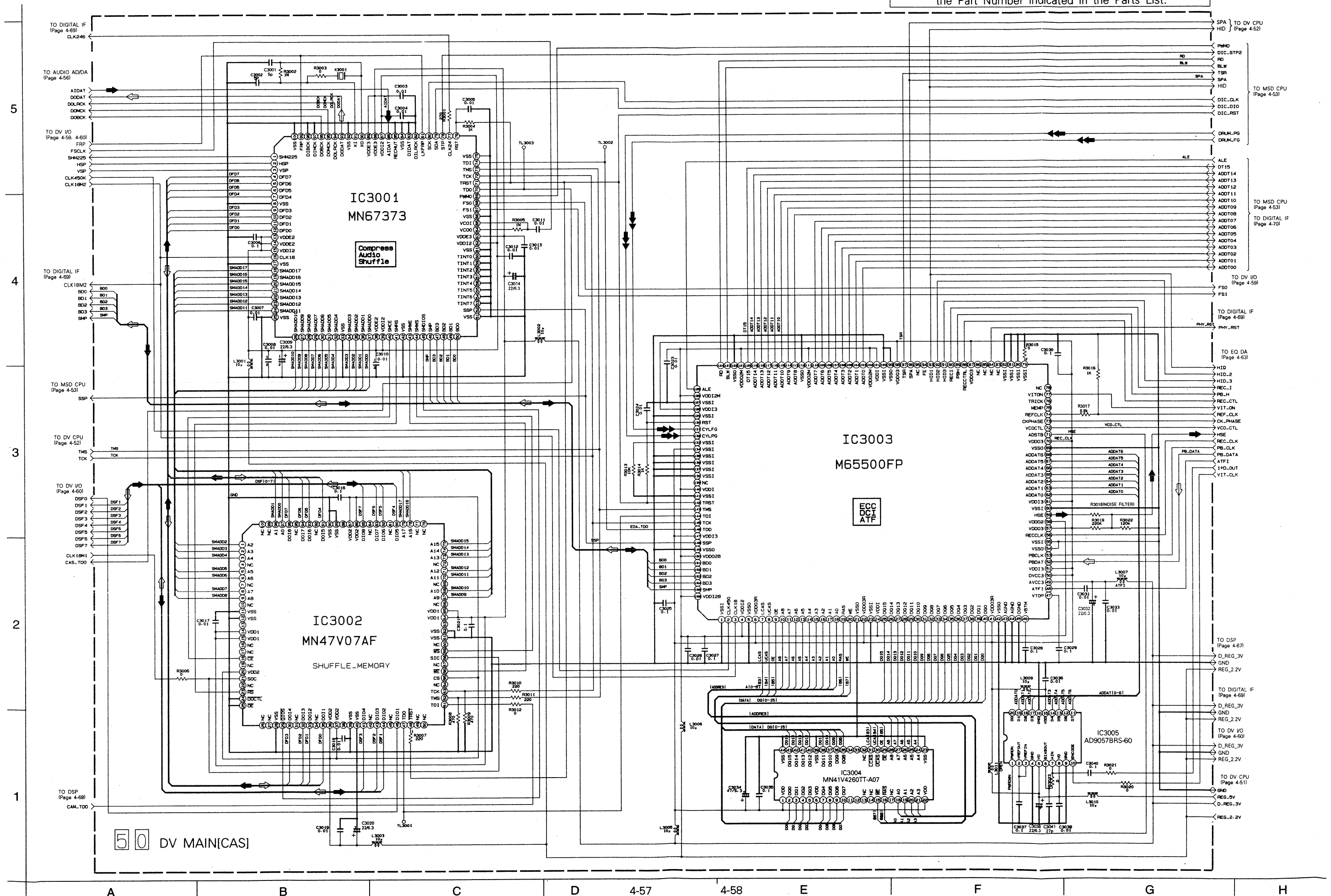


4.25 AUDIO AD/DA SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



5

4

3

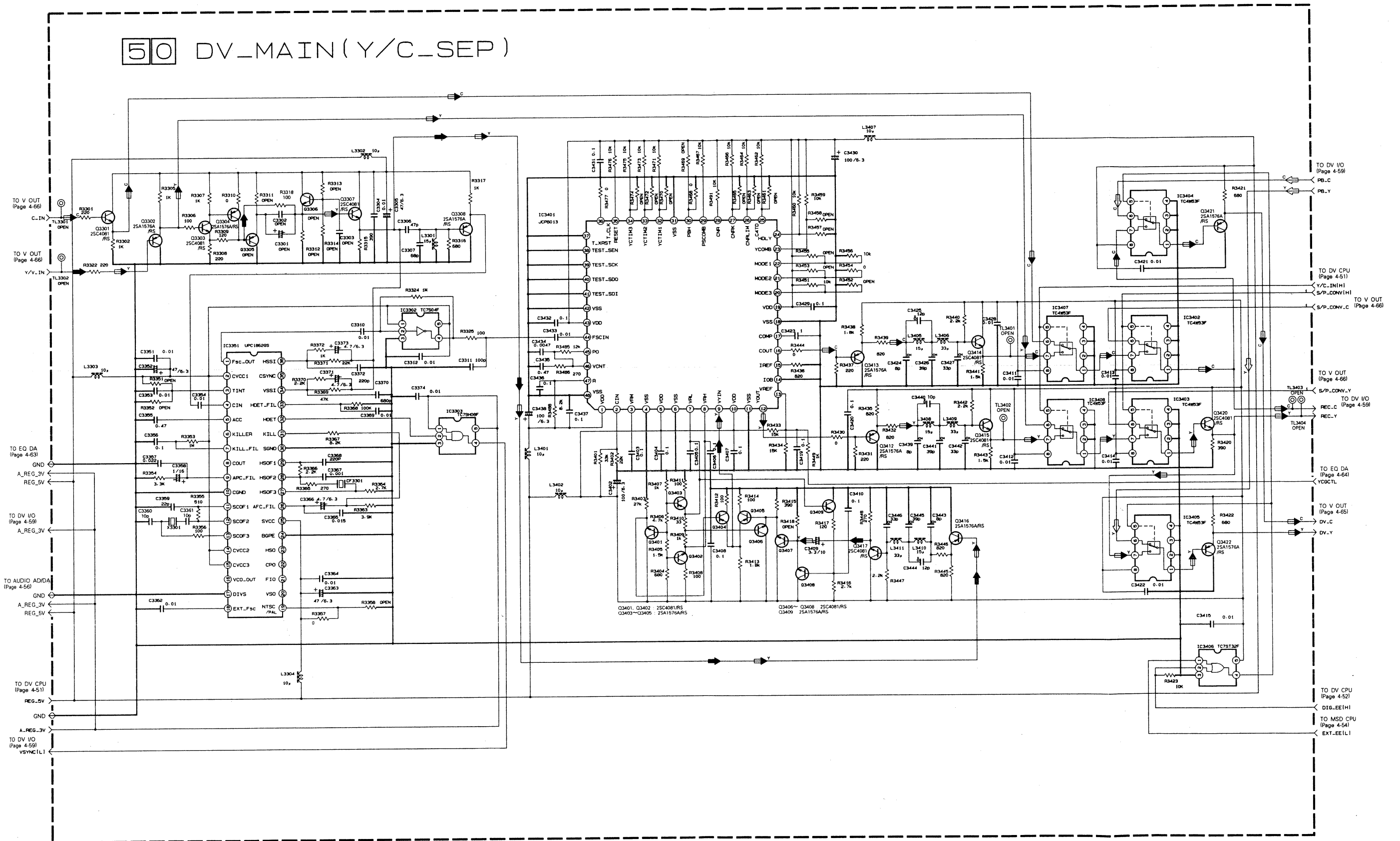
2

1



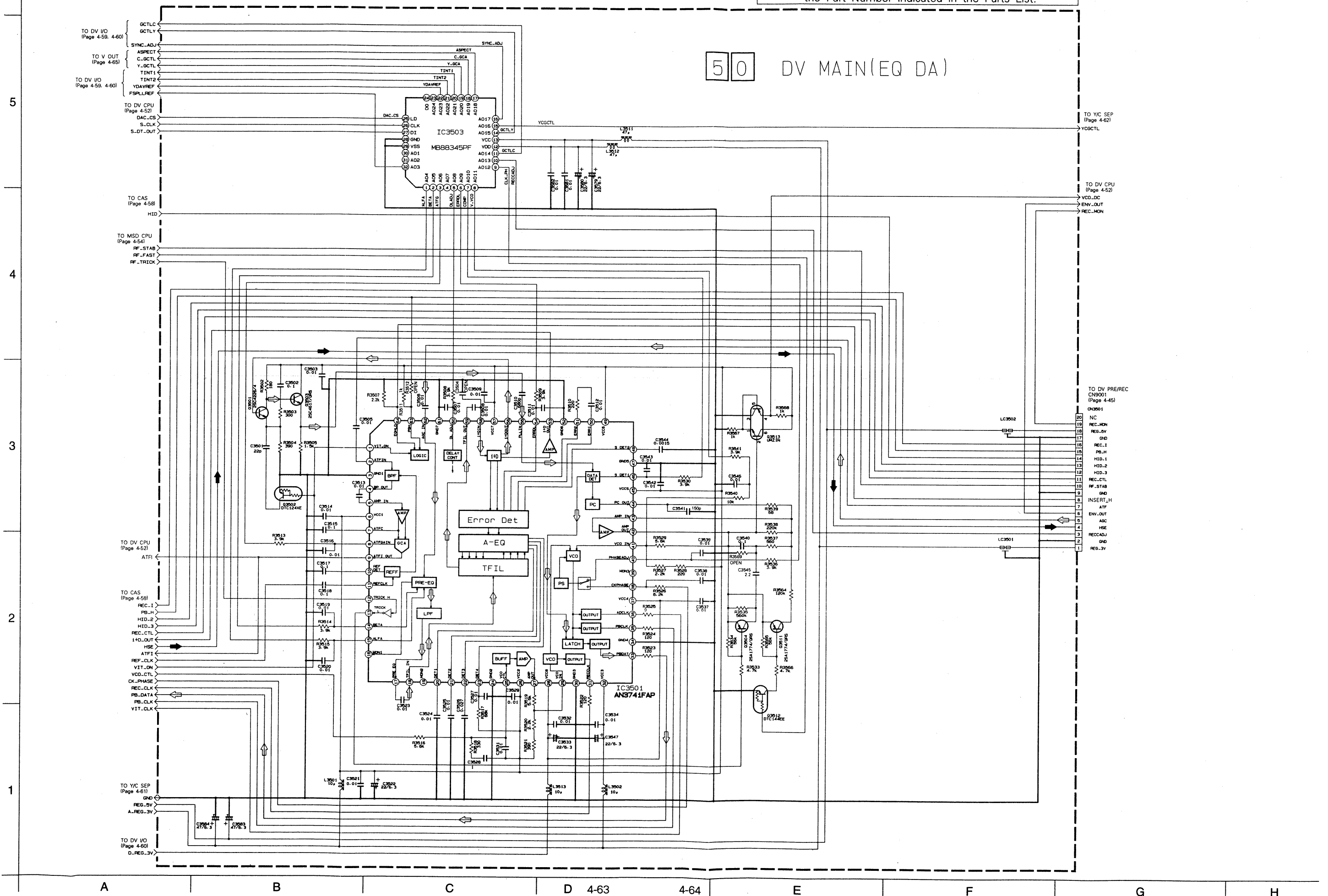
4.28 Y/C SEP SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



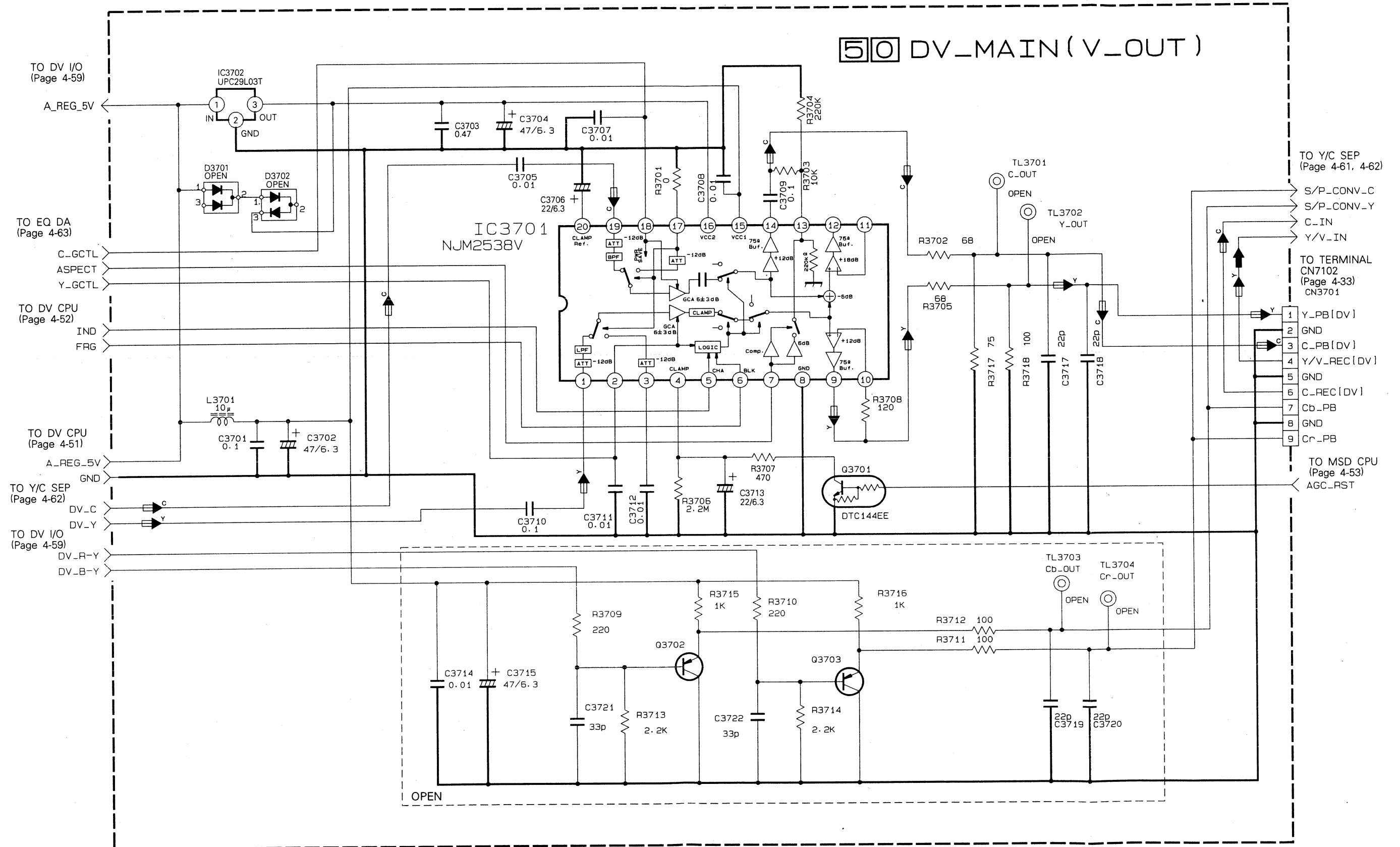
4.29 EQ DA SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4.30 V OUT SCHEMATIC DIAGRAM

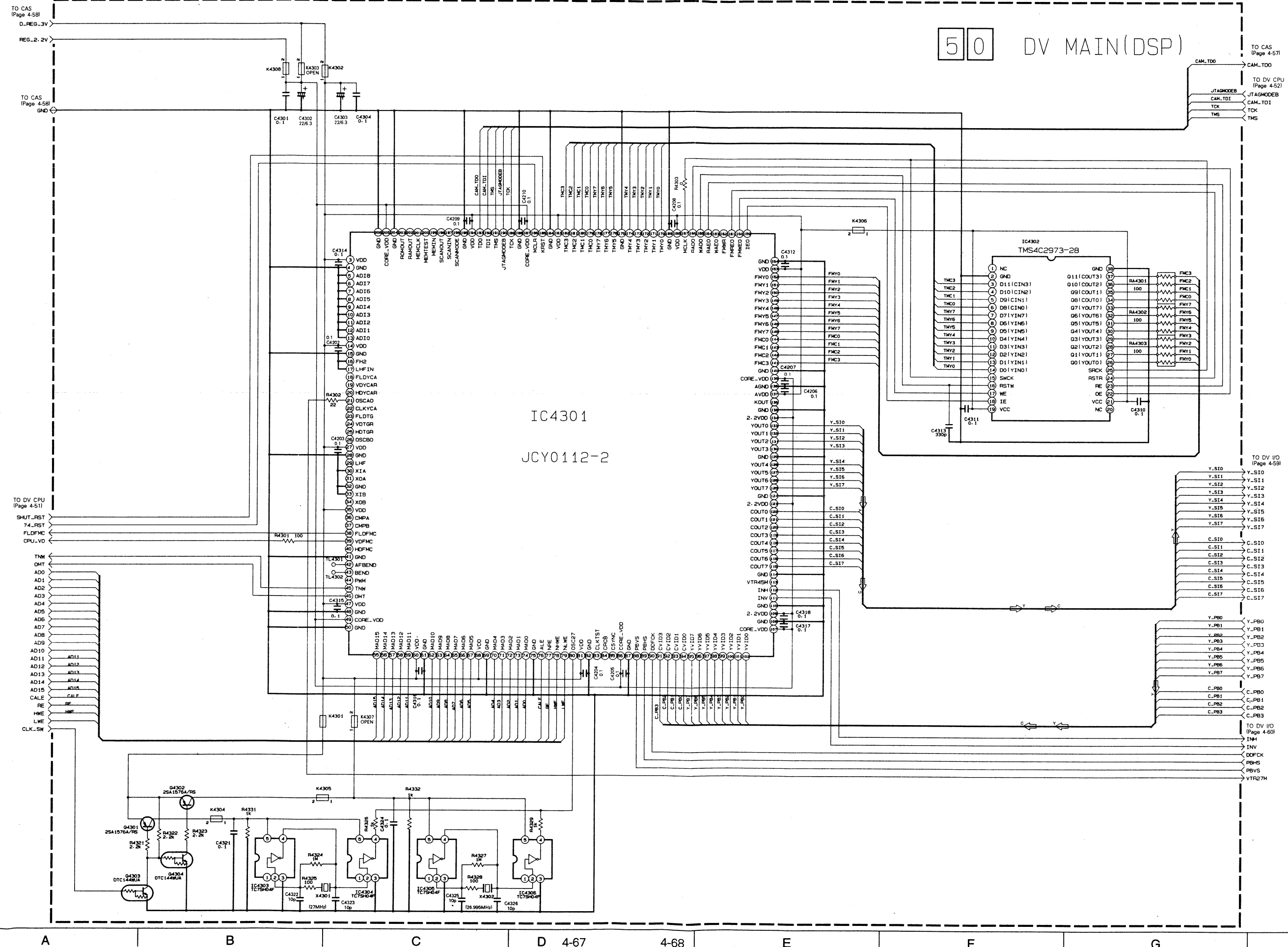
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



4.31 DSP SCHEMATIC DIAGRAM

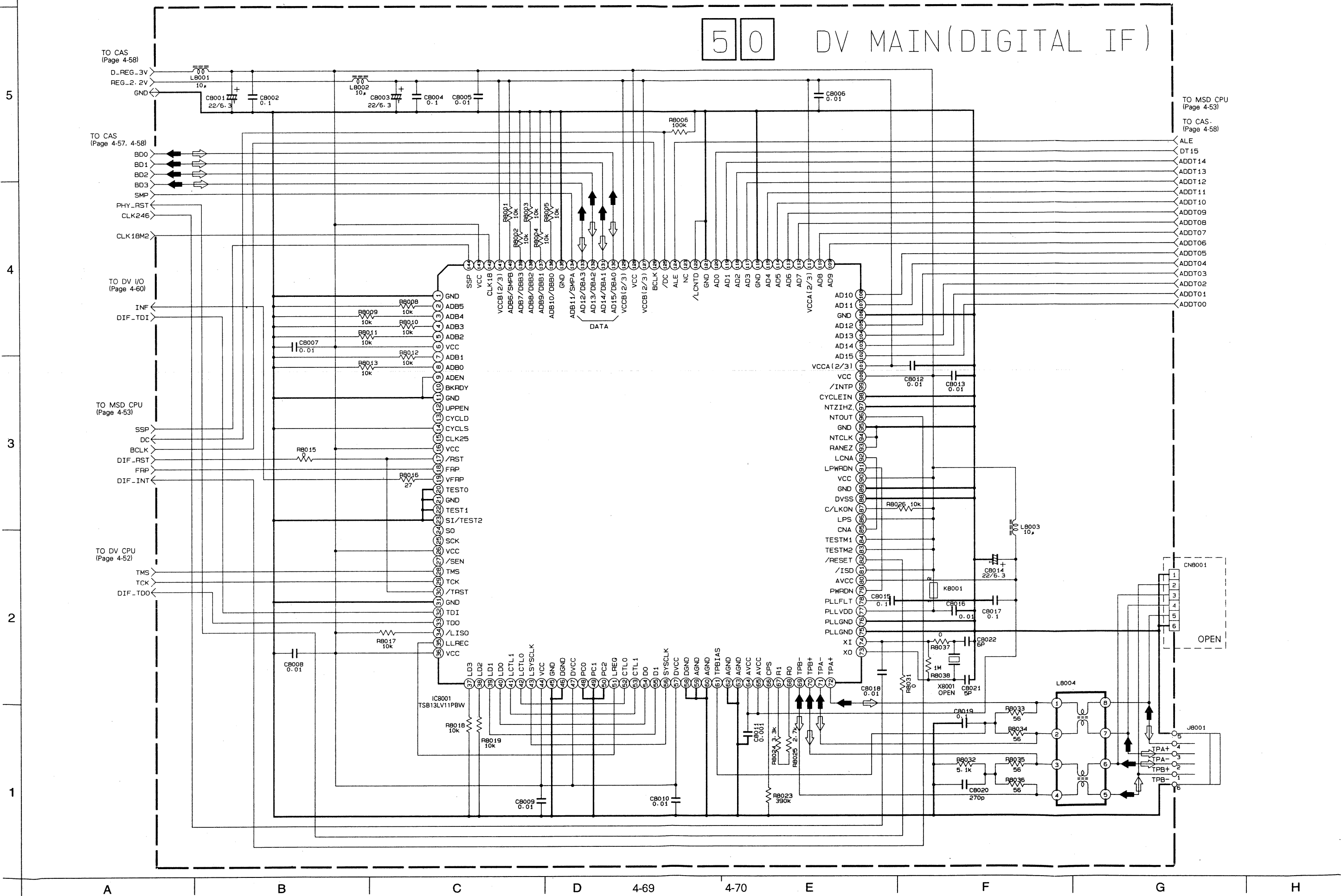
NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

50 DV MAIN(DSP)



4.32 DIGITAL IF SCHEMATIC DIAGRAM

NOTE : When ordering parts, be sure to order according to the Part Number indicated in the Parts List.



— FOIL SIDE (B) —



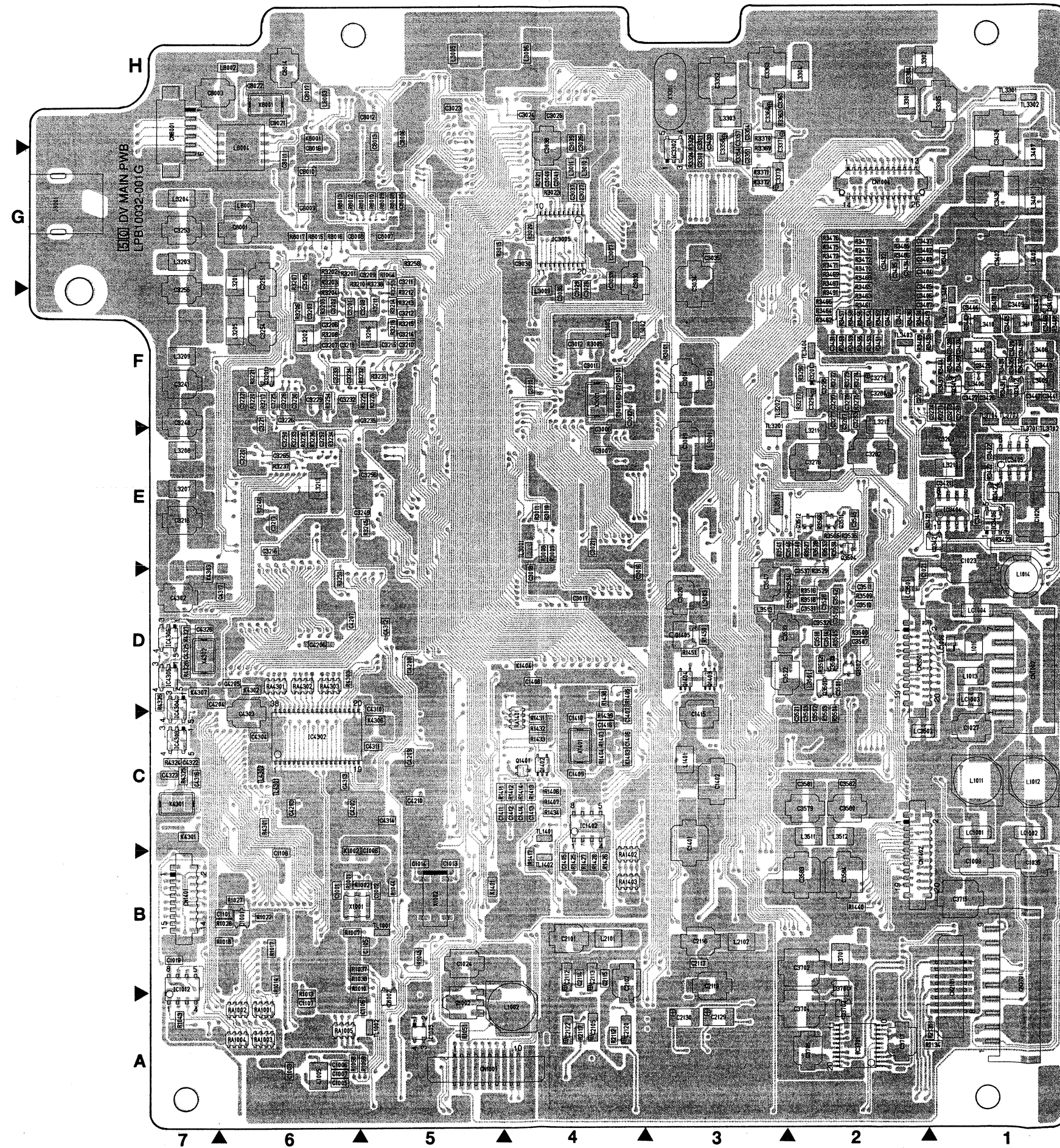
4-72

COMPONENT PARTS LOCATION GUIDE <DV MAIN>

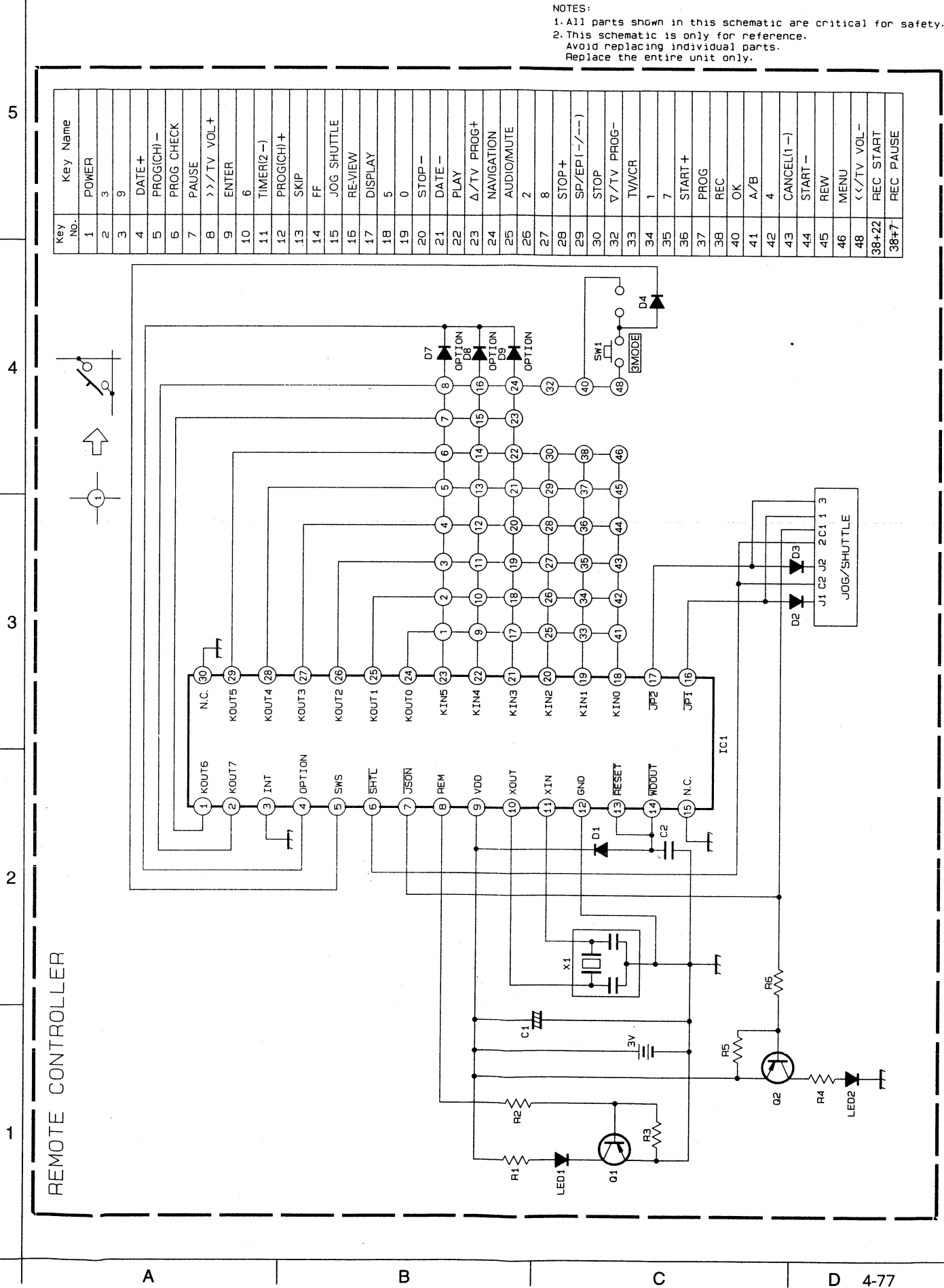
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CAPACITOR		C3002	A C 4F	C3244	B C 7E	C3367	B C 2H	C3532	A C 2D	C8012	A C 5H	COIL			
C1001	A C 6B	C3003	B C 3F	C3245	B C 7E	C3368	B C 2H	C3533	A C 3D	C8013	A C 5H	L1002	A C 4A		
C1002	A C 5B	C3004	B C 3F	C3246	B C 7E	C3369	B C 3H	C3534	A C 3D	C8014	A C 6H	L1005	A C 6A		
C1003	A C 6A	C3005	B C 3F	C3247	B C 7F	C3370	B C 3G	C3537	A C 2D	C8015	B C 6H	L1011	A C 1C		
C1004	B C 6A	C3006	A C 4E	C3248	B C 6F	C3371	A C 3H	C3538	B C 2E	C8016	A C 6H	L1012	A C 1C		
C1005	A C 6A	C3007	A C 4E	C3249	A C 6E	C3372	B C 3G	C3539	B C 2E	C8017	A C 6H	L1013	A C 1D		
C1006	A C 6A	C3008	B C 3F	C3250	A C 6E	C3373	A C 3G	C3540	B C 2E	C8018	B C 6H	L1014	A C 1D		
C1007	A C 6A	C3009	A C 3E	C3251	A C 6G	C3374	B C 3F	C3541	B C 2E	C8019	B C 6H	L1016	A C 1D		
C1008	A C 5B	C3010	A C 4F	C3252	A C 6E	C3402	A C 1G	C3542	A C 2D	C8020	B C 6H	L1401	A C 3C		
C1009	A C 1B	C3011	A C 4F	C3253	A C 7G	C3403	A C 2G	C3543	B C 2E	C8021	A C 6H	L2101	A C 4B		
C1010	B C 1B	C3012	A C 4F	C3254	A C 6F	C3404	A C 2G	C3544	B C 2E	C8022	A C 6H	L2102	A C 3B		
C1012	B C 5B	C3013	B C 3F	C3255	A C 7G	C3405	A C 2G	C3545	A C 2E	CONNECTOR		L3001	A C 3E		
C1013	A C 5B	C3014	A C 3F	C3256	A C 5E	C3406	A C 2F	C3546	A C 3E	CN1001	A C 5A	L3002	A C 3F		
C1014	A C 5B	C3016	A C 4D	C3257	B C 6G	C3407	A C 2F	C3547	A C 3D	CN1002	A C 1C	L3003	A C 3D		
C1015	B C 5B	C3017	A C 4D	C3258	B C 6G	C3408	B C 1G	C3579	A C 2C	CN1004	A C 2G	L3005	A C 5H		
C1017	B C 5A	C3018	A C 4D	C3259	B C 6G	C3409	A C 1F	C3580	A C 2C	CN1401	A C 7B	L3006	A C 4H		
C1019	A C 7B	C3019	B C 3D	C3260	B C 5G	C3410	B C 1G	C3581	A C 2C	CN1402	A C 2C	L3007	A C 4G		
C1021	A C 2D	C3020	A C 3D	C3261	B C 5G	C3411	B C 1F	C3582	A C 2C	CN2101	A C 1B	L3009	A C 4F		
C1022	B C 5B	C3021	A C 4E	C3262	B C 1E	C3412	B C 1F	C3583	A C 2B	CN3501	A C 2D	L3010	A C 4G		
C1023	A C 1E	C3023	A C 5H	C3263	B C 1E	C3413	B C 1F	C3584	A C 2B	CN3701	A C 1A	L3011	A C 4G		
C1024	A C 5B	C3024	A C 4H	C3264	B C 1E	C3414	B C 1F	C3701	B C 2B	CN8001	A C 7H	L3201	A C 6G		
C1025	B C 1E	C3025	A C 4H	C3265	A C 6E	C3415	A C 1E	C3702	A C 2B	DIODE		L3202	A C 6F		
C1026	A C 1E	C3026	A C 4H	C3266	B C 1E	C3419	A C 2F	C3703	B C 2A	D1001	A C 6B	L3203	A C 7G		
C1027	A C 1C	C3027	A C 4G	C3267	B C 1F	C3420	A C 1F	C3704	A C 2A	D1002	A C 5A	L3204	A C 7G		
C1028	B C 1C	C3028	A C 4F	C3268	B C 1F	C3421	A C 1E	C3705	B C 2A	D1004	B C 5A	L3205	A C 6F		
C1030	B C 6B	C3029	A C 4F	C3269	A C 1E	C3422	A C 1E	C3706	A C 2A	D3201	A C 2F	L3206	A C 5F		
C1035	A C 1B	C3030	A C 4G	C3272	B C 1E	C3423	A C 2F	C3707	B C 2A	D3202	B C 6F	L3207	A C 7E		
C1036	B C 1B	C3031	B C 4G	C3273	A C 1F	C3424	A C 1F	C3708	B C 2A	D3701	A C 2A	L3208	A C 7E		
C1040	B C 5G	C3032	A C 4G	C3274	A C 1F	C3425	A C 1F	C3709	B C 2A	D3702	A C 2A	L3209	A C 7F		
C1101	A C 7B	C3033	A C 4G	C3275	A C 2F	C3426	A C 1F	C3710	B C 2A	IC		L3210	A C 1E		
C1105	A C 6B	C3034	A C 3G	C3276	A C 2E	C3427	A C 1F	C3711	B C 2A	IC1001	B C 6B	L3211	A C 2E		
C1106	A C 6A	C3035	A C 3G	C3277	A C 2F	C3428	A C 1F	C3712	B C 2A	IC1002	B C 6A	L3212	A C 2F		
C1107	A C 6A	C3036	A C 4F	C3278	A C 2F	C3429	A C 2F	C3713	A C 2A	IC1003	B C 5B	L3213	A C 6E		
C1108	A C 6B	C3037	A C 4G	C3279	A C 2F	C3430	A C 1H	C3714	B C 1B	IC1004	B C 5B	L3301	A C 2H		
C1401	A C 3C	C3038	A C 4H	C3280	A C 2F	C3431	A C 2F	C3715	A C 1B	IC1005	A C 5A	L3302	A C 2H		
C1402	A C 3C	C3039	A C 4H	C3281	A C 1F	C3432	A C 2G	C3717	B C 1A	IC1007	B C 5A	L3303	A C 3H		
C1403	B C 3C	C3040	A C 4G	C3282	A C 2E	C3433	A C 3H	C3718	B C 1A	IC1012	B C 7B	L3304	A C 2H		
C1404	B C 5C	C3041	A C 4G	C3283	A C 2F	C3434	A C 2G	C3719	B C 1B	IC1401	B C 4C	L3401	A C 1G		
C1405	A C 4B	C3201	A C 6F	C3284	B C 2F	C3435	A C 2G	C3720	B C 1B	IC1402	A C 4C	L3402	A C 1G		
C1406	A C 4C	C3202	A C 6F	C3285	B C 2E	C3436	B C 1G	C3721	B C 1B	IC2101	B C 4A	L3405	A C 1F		
C1407	A C 4C	C3203	A C 6F	C3286	B C 2E	C3437	A C 2G	C3722	B C 1B	IC2102	B C 3A	L3406	A C 1F		
C1408	A C 4D	C3204	B C 6F	C3287	A C 2F	C3438	A C 1G	C4202	A C 6C	IC3001	B C 4F	L3407	A C 1G		
C1409	A C 4C	C3205	A C 6G	C3288	B C 2E	C3439	A C 1F	C4203	A C 6C	IC3002	B C 3A	L3408	A C 1F		
C1410	A C 4C	C3206	A C 6F	C3289	B C 2E	C3440	A C 1F	C4204	A C 7D	IC3003	B C 4D	L3409	A C 1F		
C1411	A C 5C	C3207	A C 6F	C3290	B C 2E	C3441	A C 1F	C4205	A C 6D	IC3004	B C 4G	L3410	A C 1F		
C1412	A C 4C	C3208	A C 6F	C3291	B C 2E	C3442	A C 1F	C4206	A C 6D	IC3005	B C 3G	L3411	A C 1F		
C1413	A C 4C	C3209	A C 5G	C3292	B C 2E	C3443	A C 1F	C4207	A C 6D	IC3201	B C 6F	L3501	A C 2D		
C1414	A C 4C	C3210	A C 5F	C3293	B C 2F	C3444	A C 1F	C4208	A C 5D	IC3202	B C 6E	L3502	B C 3D		
C1415	A C 3C	C3211	A C 5G	C3294	A C 2F	C3445	A C 1F	C4209	A C 5C	IC3203	B C 2F	L3511	A C 2C		
C1416	A C 4C	C3212	A C 5F	C3295	A C 2F	C3446	A C 1F	C4210	A C 5C	IC3204	B C 1E	L3512	A C 2C		
C2101	A C 4B	C3213	A C 6F	C3296	B C 6F	C3501	A C 2D	C4301	B C 7D	IC3205	B C 2F	L3513	A C 3D		
C2102	A C 4B	C3214	A C 5F	C3297	A C 2F	C3502	A C 2C	C4302	A C 7D	IC3206	B C 2E	L3701	A C 2B		
C2103	B C 4A	C3215	A C 5F	C3298	B C 2F	C3503	A C 2C	C4303	A C 6C	IC3207	B C 6F	L8001	A C 6G		
C2104	B C 4A	C3216	A C 6E	C3299	B C 6F	C3504	B C 2D	C4304	A C 6C	IC3302	A C 3G	L8002	A C 6H		
C2105	A C 4A	C3217	A C 6E	C3301	B C 1H	C3505	B C 2D	C4310	A C 5C	IC3303	B C 2F	L8003	A C 6H		
C2106	B C 4A	C3218	A C 7E	C3302	B C 1H	C3506	B C 2D	C4311	A C 5C	IC3351	B C 3H	TRANSISTOR			
C2107	B C 4A	C3219	B C 7E	C3303	B C 1H	C3507	A C 2D	C4312	A C 5D	Q1001	B C 7A				
C2108	B C 4A	C3220	A C 6E	C3304	A C 2H	C3508	B C 2D	C4313	A C 6C	Q1002	A C 5A				
C2109	B C 4B	C3221	A C 6F	C3305	A C 1H	C3509	A C 2D	C4314	A C 5C	Q1003	B C 5A				
C2110	B C 4B	C3222	A C 6F	C3306	B C 2H	C3510	A C 2D	C4315	B C 6C	Q1004	B C 1C				
C2111	B C 4B	C3223	B C 6F	C3307	B C 2H	C3511	A C 2D	C4316	A C 7C	Q1005	B C 1D				
C2112	A C 4B	C3224	B C 6F	C3310	A C 3G	C3512	B C 2D	C4317	A C 7D	Q1006	B C 1C				
C2113	A C 4B	C3225	A C 6F	C3311	A C 3H	C3513	B C 2D	C4318	B C 6D	Q1007	B C 1C				
C2114	A C 4B	C3226	A C 6F	C3312	B C 3G	C3514	A C 2D	C4321	B C 7C	Q1008	B C 5F				
C2115	A C 4B	C3227	B C 7F	C3351	A C 3G	C3515	B C 2D	C4322	A C 7C	Q1009	B C 5A				
C2116	A C 3B	C3228	A C 6F	C3352	A C 3H	C3516	B C 2D	C4323	A C 7C	Q1010	B C 1E				
C2117	A C 3B	C3229	A C 6F	C3353	B C 3G	C3517	B C 2D	C4324	B C 7D	Q1011	B C 1D				
C2118	B C 3A	C3230	A C 6F	C3354	A C 3H	C3518	A C 2D	C4325	A C 7D	Q1012	B C 1D				
C2119	A C 3B	C3231	B C 6F	C3355	B C 3H	C3519	B C 3D	C4326	A C 7D	Q1013	B C 1D				
C2120	A C 4A	C3232	A C 6F	C3356	B C 3H	C3520	B C 3D	C8001	A C 6G	Q1401	A C 4C				
C2122	A C 4A	C3233	A C 6F	C3357	A C 3H	C3521	A C 2C	C8002	B C 6G	Q1402	A C 4C				
C2124	B C 3A	C3234	A C 6F	C3358	A C 3H	C3522	A C 3D	C8003	A C 7H	Q1403	A C 3D				
C2125	B C 3A	C3235	A C 5F	C3359	B C 3H	C3523	B C 3D	C8004	B C 7H	Q1404	A C 3D				
C2126	B C 3A	C3236	B C 5E	C3360	B C 3H	C3524	B C 3D	C8005	A C 5H	Q2102	A C 3A				
C2127	B C 3A	C3238	B C 5E	C3361	B C 3H	C3525	B C 3D	C8006	A C 5G	Q3201	A C 6F				
C2128	B C 4A	C3239	B C 5E	C3362	B C 3H	C3526	B C 3D	C8007	A C 6G	Q3202	B C 6F				
C2129	A C 3A	C3240	A C 7F	C3363	A C 3H	C3527	B C 3D	C8008	A C 6G	Q3204	B C 6F				
C2130	A C 3A	C3241	A C 7F	C3364	B C 2H	C3528	A C 2D	C8009	A C 6G						
C2131	B C 4A	C3242	B C 7E	C3365	A C 3H	C3529	A C 3D	C8010	A C 6G						
C3001	A C 4F	C3243	B C 7E	C3366	A C 3H	C3531	A C 2D	C8011	A C 6G						

REF.NO.	LOCATION		REF.NO.	LOCATION		REF.NO.	LOCATION		REF.NO.	LOCATION		REF.NO.	LOCATION		REF.NO.	LOCATION											
Q3205	B	C	1E	R1050	B	C	5B	R2137	B	C	4A	R3262	B	C	1E	R3415	B	C	1G	R3524	B	C	3E	R8036	B	C	6H
Q3206	B	C	6F	R1051	A	C	5A	R3001	A	C	3F	R3263	B	C	1E	R3416	B	C	1G	R3525	B	C	3E	R8037	B	C	6H
Q3301	B	C	1H	R1052	A	C	5A	R3002	A	C	4F	R3264	B	C	1E	R3417	B	C	1G	R3526	B	C	2E	R8038	B	C	6H
Q3302	B	C	1H	R1053	B	C	5A	R3003	A	C	4F	R3265	B	C	1E	R3418	A	C	1F	R3527	A	C	2E	RA1001	A	C	6A
Q3303	B	C	1H	R1054	B	C	5A	R3004	B	C	3F	R3266	B	C	1E	R3420	B	C	1F	R3528	A	C	2E	RA1002	A	C	6A
Q3304	B	C	1H	R1062	B	C	5A	R3005	A	C	4F	R3267	B	C	1E	R3421	A	C	2E	R3529	A	C	2D	RA1003	A	C	6A
Q3305	B	C	1H	R1064	A	C	5G	R3006	B	C	4D	R3268	B	C	1E	R3422	A	C	1E	R3530	B	C	2E	RA1004	A	C	6A
Q3306	B	C	1H	R1065	B	C	5F	R3007	B	C	4E	R3269	B	C	1F	R3423	A	C	1E	R3533	A	C	2E	RA1005	A	C	6A
Q3307	B	C	2H	R1066	B	C	5G	R3008	A	C	4E	R3270	B	C	2E	R3430	A	C	1F	R3534	A	C	2E	RA1401	A	C	4C
Q3308	B	C	2H	R1067	B	C	5G	R3009	A	C	4E	R3271	A	C	1F	R3431	A	C	1F	R3535	A	C	2E	RA1402	A	C	4B
Q3401	B	C	1G	R1068	A	C	6A	R3010	A	C	4E	R3272	A	C	2F	R3432	A	C	1F	R3536	B	C	2E	RA1403	A	C	4B
Q3402	B	C	1G	R1069	A	C	6A	R3011	A	C	4E	R3273	A	C	2F	R3433	A	C	2F	R3537	B	C	2E	RA4301	A	C	6D
Q3403	B	C	1G	R1401	B	C	4D	R3012	B	C	4E	R3274	A	C	2F	R3434	A	C	2F	R3538	B	C	2E	RA4302	A	C	6D
Q3404	B	C	1G	R1402	B	C	4D	R3013	B	C	4H	R3275	A	C	2F	R3435	A	C	1F	R3539	B	C	2E	RA4303	A	C	6D
Q3405	B	C	1G	R1403	A	C	4C	R3014	B	C	4H	R3276	B	C	2F	R3436	A	C	2F	R3540	A	C	2E	OTHER			
Q3406	B	C	1G	R1404	A	C	4C	R3015	A	C	5G	R3277	A	C	2F	R3437	A	C	1F	R3541	A	C	3E	CF3201	B	C	1E
Q3407	B	C	1G	R1405	A	C	4D	R3016	B	C	4G	R3278	B	C	2F	R3438	A	C	1F	R3564	B	C	2E	CF3301	B	C	2H
Q3408	B	C	1G	R1406	A	C	4C	R3017	B	C	5G	R3279	B	C	3F	R3439	A	C	1F	R3565	A	C	2E	K1001	B	C	5A
Q3409	B	C	1G	R1407	A	C	4C	R3018	B	C	4G	R3280	B	C	2F	R3440	B	C	1F	R3566	A	C	2E	K1002	A	C	6B
Q3412	A	C	1F	R1408	B	C	5C	R3019	B	C	4G	R3281	B	C	2F	R3441	B	C	1F	R3567	B	C	2E	K1401	A	C	5B
Q3413	A	C	1F	R1409	B	C	5C	R3020	A	C	4G	R3282	B	C	2F	R3442	B	C	1F	R3568	B	C	2E	K1402	B	C	3D
Q3414	B	C	1F	R1410	B	C	4D	R3021	A	C	4G	R3283	B	C	2F	R3443	B	C	1F	R3569	B	C	2E	K1403	A	C	4C
Q3415	B	C	1F	R1411	A	C	5C	R3022	B	C	4G	R3284	B	C	2E	R3444	A	C	1F	R3701	B	C	2A	K1404	A	C	4D
Q3416	B	C	1F	R1412	A	C	4C	R3023	A	C	4G	R3285	B	C	2E	R3445	B	C	1F	R3702	B	C	2A	K3201	B	C	6G
Q3417	A	C	1F	R1413	A	C	4C	R3201	A	C	6G	R3286	B	C	2E	R3446	B	C	1F	R3703	B	C	2A	K4301	A	C	7C
Q3420	B	C	1F	R1414	A	C	4C	R3202	A	C	6G	R3287	B	C	2E	R3447	A	C	1F	R3704	B	C	2A	K4302	A	C	6D
Q3421	A	C	1E	R1415	B	C	5C	R3203	A	C	6G	R3288	B	C	2F	R3448	A	C	1F	R3705	B	C	2A	K4303	A	C	7D
Q3422	A	C	1E	R1416	B	C	5C	R3204	A	C	6F	R3289	B	C	3F	R3449	A	C	2F	R3706	B	C	2A	K4304	B	C	7C
Q3501	A	C	2D	R1417	A	C	4B	R3205	A	C	6F	R3290	A	C	2F	R3451	A	C	2F	R3707	B	C	2A	K4305	B	C	7D
Q3502	A	C	2D	R1418	B	C	3B	R3206	A	C	6F	R3301	B	C	1H	R3452	A	C	2F	R3708	B	C	2A	K4306	A	C	5C
Q3503	A	C	2D	R1419	B	C	4B	R3207	A	C	6G	R3302	B	C	1H	R3453	A	C	2F	R3709	B	C	1B	K4307	A	C	7D
Q3504	A	C	2E	R1420	B	C	4C	R3208	A	C	6F	R3305	B	C	1H	R3454	A	C	2F	R3710	B	C	1B	K4308	B	C	7D
Q3511	A	C	2E	R1421	B	C	5D	R3209	B	C	6G	R3306	B	C	1H	R3455	A	C	2F	R3711	B	C	1B	K8001	A	C	6H
Q3512	A	C	2E	R1422	B	C	5D	R3210	A	C	6G	R3307	B	C	1H	R3456	A	C	2F	R3712	B	C	1B	LC1001	A	C	1C
Q3513	B	C	2E	R1423	B	C	5D	R3211	A	C	5F	R3308	B	C	1H	R3457	A	C	2F	R3713	B	C	1B	LC1002	A	C	1C
Q3701	B	C	2A	R1424	B	C	5D	R3212	A	C	5F	R3309	B	C	1H	R3458	A	C	2F	R3714	B	C	1B	LC1003	A	C	1D
Q3702	B	C	1B	R1425	A	C	4B	R3213	A	C	5F	R3310	B	C	1H	R3459	A	C	2F	R3715	B	C	1B	LC1004	A	C	1D
Q3703	B	C	1B	R1426	A	C	4B	R3214	A	C	5F	R3311	B	C	1H	R3460	A	C	2F	R3716	B	C	1B	LC1006	A	C	1D
Q4301	B	C	7C	R1427	A	C	4B	R3215	A	C	5F	R3312	B	C	1H	R3461	A	C	2F	R3717	B	C	1A	LC3501	A	C	2D
Q4302	B	C	7C	R1428	A	C	4B	R3216	A	C	5F	R3313	B	C	1H	R3462	A	C	2F	R3718	B	C	1A	LC3502	A	C	2C
Q4303	B	C	7C	R1429	B	C	3D	R3217	A	C	6F	R3314	B	C	1H	R3463	A	C	2F	R4301	A	C	6C	TL1001	A	C	5B
Q4304	B	C	7C	R1430	B	C	3D	R3218	B	C	6F	R3315	B	C	2H	R3464	A	C	2F	R4302	B	C	5C	TL1002	A	C	5A
RESISTOR				R1431	A	C	4C	R3219	B	C	6F	R3316	B	C	2H	R3465	A	C	2G	R4303	A	C	6D	TL1401	A	C	4C
R1001	A	C	6B	R1432	A	C	4C	R3220	A	C	6F	R3317	B	C	2H	R3466	A	C	2F	R4321	B	C	7C	TL1402	A	C	4B
R1002	A	C	6B	R1433	A	C	4C	R3221	A	C	6F	R3318	B	C	1G	R3467	A	C	2G	R4322	B	C	7C	TL3001	A	C	4E
R1003	B	C	5B	R1434	A	C	4C	R3222	B	C	6F	R3322	B	C	1H	R3468	A	C	2G	R4323	B	C	7C	TL3002	A	C	4F
R1004	B	C	5B	R1438	A	C	4D	R3223	B	C	6F	R3324	A	C	3G	R3469	A	C	2G	R4324	A	C	7C	TL3003	A	C	4F
R1007	A	C	6B	R1439	A	C	4C	R3224	B	C	6F	R3325	A	C	3H	R3470	A	C	2G	R4325	A	C	7C	TL3201	A	C	3E
R1010	A	C	6A	R1440	A	C	2B	R3225	A	C	6F	R3351	B	C	3G	R3471	A	C	2G	R4326	A	C	7D	TL3202	A	C	3F
R1013	A	C	6B	R1450	A	C	3D	R3226	A	C	5F	R3352	B	C	3G	R3472	A	C	2G	R4327	A	C	7D	TL3301	A	C	1H
R1014	A	C	6B	R1451	A	C	3D	R3227	B	C	5F	R3353	B	C	3H	R3473	A	C	2G	R4328	A	C	7D	TL3302	A	C	1H
R1015	B	C	7B	R2101	B	C	4A	R3228	B	C	5F	R3354	A	C	3G	R3474	A	C	2G	R4329	B	C	7D	TL3401	A	C	1F
R1016	B	C	7B	R2102	B	C	4A	R3229	B	C	5F	R3355	B	C	3H	R3475	A	C	2G	R4331	B	C	7C	TL3402	A	C	1F
R1017	A	C	6B	R2103	B	C	4A	R3230	B	C	5E	R3356	B	C	3H	R3476	A	C	2G	R4332	B	C	7D	TL3403	A	C	2F
R1018	A	C	7B	R2104	B	C	4A	R3231	A	C	5F	R3357	B	C	3H	R3477	A	C	2G	R8001	B	C	5G	TL3404	A	C	2F
R1020	B	C	7B	R2105	B	C	4A	R3232	A	C	6F	R3358	B	C	3H	R3485	A	C	2G	R8002	B	C	5G	TL3501	A	C	3E
R1022	A	C	6B	R2106	B	C	4A	R3233	A	C	6E	R3363	A	C	3H	R3486	A	C	2G	R8003	B	C	5G	TL3701	A	C	1F
R1025	B	C	5A	R2107	B	C	4A	R3234	A	C	6E	R3364	B	C	2H	R3488	B	C	1G	R8004	B	C	5G	TL3702	A	C	1F
R1026	B	C	5A	R2108	B	C	4A	R3235	A	C	6E	R3365	B	C	2H	R3491	A	C	2F	R8005	B	C	5G	TL3703	A	C	1F
R1027	A	C	6B	R2109	B	C	4A	R3236	A	C	6E	R3366	B	C	3H	R3502	A	C	2D	R8006	B	C	5G	TL3704	A	C	1F
R1028	A	C	7B	R2110	B	C	3A	R3237	A	C	6E	R3367	B	C	3H	R3503	A	C	2C	R8008	A	C	5G	TL4301	A	C	6C
R1029	B	C	6A	R2111	B	C	3A	R3238	A	C	5G	R3368	B	C	3G	R3504	A	C	2C	R8009	A	C	5G	TL4302	A	C	6C
R1030	B	C	6A	R2112	A	C	4A	R3241	B	C																	

— COMPONENT SIDE (A) —

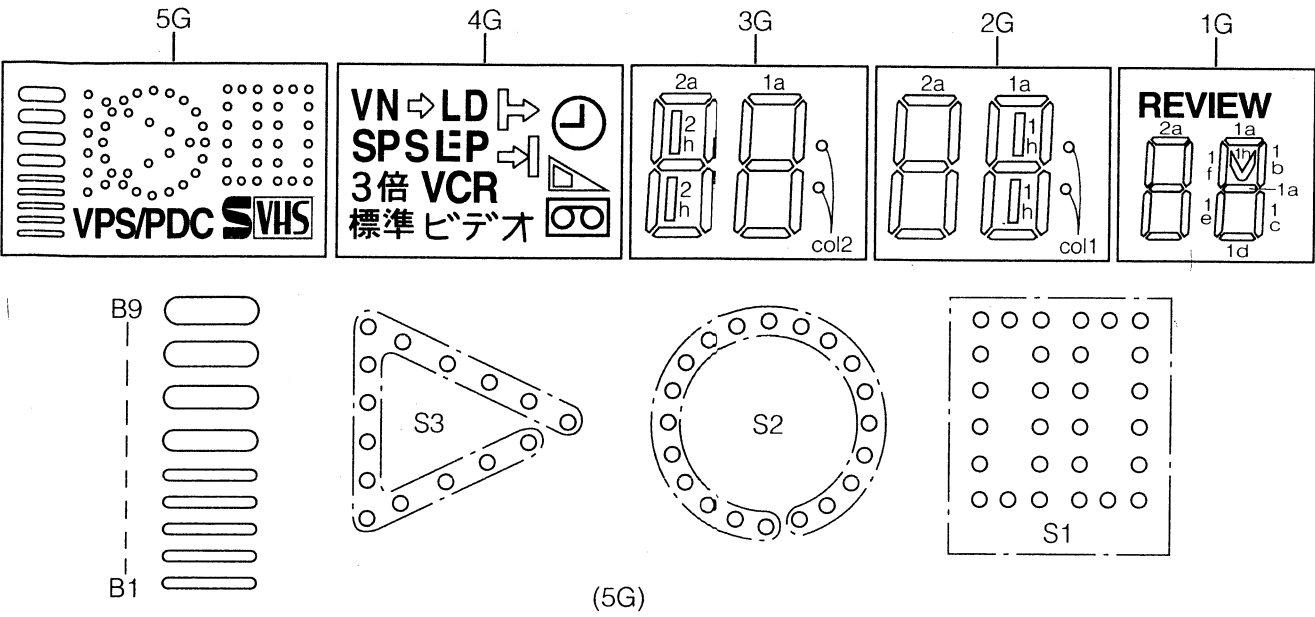


4.34 REMOTE CONTROL SCHEMATIC DIAGRAM



4.35 FDP GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

	5G	4G	3G	2G	1G
P 1	S2	→	1a	1a	1a
P 2	S1	←	1b	1b	1b
P 3	S3	3倍	1f	1f	1f
P 4	VPS/PDC	標準	1g	1g	1g
P 5	SVHS	⌚	1c	1c	1c
P 6	—	△	1e	1e	1e
P 7	—	⊞	1d	1d	1d
P 8	B9	VCR	col2	1h	1h
P 9	B8	ビデオ	2a	2a	2a
P10	B7	→	2b	2b	2b
P11	B6	VN	2f	2f	2f
P12	B5	LD	2g	2g	2g
P13	B4	SP	2c	2c	2c
P14	B3	S _(SEP)	2e	2e	2e
P15	B2	= _(SEP)	2d	2d	2d
P16	B1	LP _(SEP)	2h	col1	REVIEW

4.36 VOLTAGE CHARTS

<SWITCHING REGULATOR>

MODE PIN NO.	REC	PLAY
IC5101		
1	-	-
2	-	-
3	172.9	170.8
4	-	-
5	0	0
IC5301		
1	10.4	10.4
2	0	0
3	2.4	2.4
Q5301		
E	0	0
C	10.4	10.4
B	0	0
Q5302		
E	2.2	2.2
C	0	0
B	2.2	2.2
CN5201		
1	21.3	21.3
2	0	0
3	-27.3	-27.3
4	0	0
5	0	0
6	12.1	12.1
7	0	0
8	7.3	7.3
9	-11.8	-11.8
10	6.1	6.1
11	6.1	6.1
12	4.1	4.1
13	31.6	31.6
14	42.7	42.7
15	-18.5	-18.5
16	-18.5	-18.5
17	-14.6	-14.6
18	-14.5	-14.5
19	2.2	2.2

<REGULATOR>

MODE PIN NO.	REC	PLAY
IC5321		
1	4.1	4.1
2	3.1	3.1
3	0	0
4	2.6	2.6
Q5321		
E	5.0	5.0
C	6.1	6.1
B	5.6	5.6
Q5322		
E	0	0
C	5.6	5.6
B	0.6	0.6
Q5323		
E	7.3	7.3
C	0	0
B	7.3	7.3
Q5324		
E	0	0
C	7.3	7.3
B	0	0
Q5325		
E	2.5	2.5
C	4.1	4.1
B	3.1	3.1

MODE PIN NO.	REC	PLAY
Q5326		
E	5.1	5.1
C	6.1	6.1
B	5.7	5.7
Q5327		
E	0	0
C	5.7	5.7
B	0.6	0.6
Q5328		
E	11.4	11.4
C	12.1	12.1
B	12.0	12.0
Q5329		
E	12.0	12.0
C	12.1	12.1
B	0	0
Q5330		
E	5.1	5.1
C	6.1	6.1
B	5.8	5.8
Q5331		
E	11.2	11.2
C	11.2	11.2
B	10.5	10.5
Q5332		
E	0	0
C	0	0
B	4.6	4.6
Q5333		
E	10.8	10.8
C	12.1	12.1
B	11.5	11.5
Q5334		
E	12.1	12.1
C	12.1	12.1
B	0.6	0.6
Q5335		
E	21.3	21.3
C	11.3	11.3
B	21.2	21.2
Q5336		
E	0	0
C	21.2	21.2
B	0	0
Q5337		
E	12.1	12.1
C	11.4	11.4
B	10.7	10.7
Q5338		
E	31.6	31.6
C	31.6	31.6
B	30.9	30.9
Q5339		
E	-14.7	-14.7
C	-14.6	-14.6
B	-13.9	-13.9
Q5340		
E	6.1	6.1
C	6.0	6.0
B	1.0	1.0
Q5341		
E	0	0
C	0	0
B	4.6	4.6
CN5301		
1	2.2	2.2
2	-14.5	-14.5
3	-14.6	-14.6
4	-18.5	-18.5
5	-18.5	-18.5
6	42.7	42.7
7	31.6	31.6

MODE PIN NO.	REC	PLAY
8	4.1	4.1
9	6.1	6.1
10	6.1	6.1
11	-11.8	-11.8
12	7.3	7.3
13	0	0
14	12.1	12.1
15	0	0
16	0	0
17	-27.3	-27.3
18	0	0
19	21.3	21.3
CN5321		
1	12.1	12.1
2	11.4	11.4
3	11.3	11.3
4	0	0
5	0	0
6	-18.5	-18.5
7	-27.3	-27.3
8	-14.7	-14.7
9	0	0
10	4.5	4.5
11	4.6	4.6
12	0	0
CN5322		
1	5.8	5.8
2	42.7	42.3
3	4.9	4.9
4	4.9	4.9
5	-11.9	-11.9
6	12.1	12.1
7	11.5	11.5
8	0	0
9	0	0
10	0	0
11	5.1	5.1
12	31.1	31.1
13	10.7	10.7
CN5323		
1	5.1	5.1
2	0	0
3	3.1	3.1
4	0	0
5	2.5	2.5
6	0	0
7	0	0
CN5325		
1	6.9	6.9
2	0	0
3	7.3	7.3
4	5.1	5.1
5	0	0
CN5326		
1	11.2	11.2
2	0	0

<VIDEO/N.AUDIO>

MODE PIN NO.	REC	PLAY
IC1		
1	2.5	2.5
2	2.5	2.5
3	0	0
4	2.6	2.4
5	0	0
6	2.8	2.8

MODE PIN NO.	REC	PLAY
7	2.3	2.5
8	2.5	2.5
9	2.3	2.5
10	2.4	2.5
11	2.4	2.5
12	4.8	4.8
13	1.8	1.3
14	1.8	1.3
15	2.6	2.6
16	1.5	0.6
17	1.8	1.9
18	2.3	2.1
19	3.0	3.0
20	2.7	2.6
21	2.3	2.3
22	1.9	2.0
23	3.0	3.0
24	2.1	2.2
25	1.4	1.4
26	2.1	2.1
27	0	0
28	4.8	4.8
29	1.4	1.9
30	3.0	3.0
31	2.8	2.8
32	0	0
33	0	0
34	0	0
35	2.9	2.9
36	4.8	4.8
37	0	0.1
38	4.7	4.8
39	3.3	3.3
40	4.8	4.8
41	4.8	4.8
42	1.8	1.8
43	4.8	4.8
44	2.2	2.4
45	0	0
46	1.8	1.8
47	0	0
48	0	0
49	0	0
50	0.3	0.3
51	0.1	0.1
52	1.4	2.4
53	3.0	2.8
54	2.0	1.9
55	2.1	2.1
56	2.8	2.4
57	0	0.1
58	2.9	2.9
59	3.0	3.0
60	2.1	2.1
61	4.8	4.8
62	4.8	4.8
63	4.7	4.7
64	0	0
65	1.0	2.8
66	4.8	4.8
67	4.8	4.8
68	0	0
69	2.8	2.8
70	2.9	2.9
71	2.1	2.1
72	2.3	2.1
73	-	-
74	2.6	1.1
75	-	-
76	2.4	0
77	4.8	4.8
78	2.8	2.8

MODE PIN NO.	REC	PLAY
79	4.0	0
80	0	0
81	-	-
82	1.2	1.1
83	2.4	3.3
84	0	1.9
85	0	0
86	2.2	0
87	2.3	2.1
88	2.3	2.1
89	2.3	2.2
90	4.8	4.8
91	0	0
92	0	0
93	0	0
94	0	0
95	2.9	0.3
96	4.8	4.8
97	0	0
98	4.8	4.8
99	0.6	2.5
100	2.5	2.5
IC2		
1	4.6	2.7
2	0	0
3	2.7	2.7
4	4.8	0
5	2.7	2.7
6	4.8	4.8
7	1.9	1.9
8	0	0
Q1		
E	3.3	3.3
C	0	0
B	2.7	2.7
Q6		
E	2.7	2.7
C	0	0
B	2.1	2.1
Q13		
E	1.0	1.0
C	3.8	3.8
B	1.7	1.7
Q14		
E	3.2	3.2
C	4.8	4.8
B	3.8	3.8
Q15		
E	3.7	3.7
C	0	0
B	3.2	3.2
Q16		
E	4.8	4.8
C	4.8	0
B	0.2	4.9
Q17		
E	0	0
C	0	0
B	3.0	3.0
Q18		
E	0	0
C	0	0
B	3.0	3.0
Q47		
D	4.8	4.8
G	2.3	2.1
S	2.8	2.7
Q48		
D	1.8	1.8
G	0	0
S	1.1	1.1
Q49		

MODE PIN NO.	REC	PLAY
E	2.1	2.1
C	4.8	4.8
B	2.7	2.7
Q55		
E	0	0
C	0	0
B	3.0	3.0
Q152		
E	4.0	2.7
C	0	0
B	4.7	2.1
Q153		
E	2.1	2.1
C	4.8	4.8
B	2.7	2.7
Q401		
E	10.7	11.5
C	11.4	0
B	11.4	11.4
Q402		
E	0	0
C	0	11.4
B	4.9	0
Q403		
E	0	0
C	0	0
B	4.9	0
Q404		
E	7.7	0
C	0	0
B	7.0	0
Q405		
E	9.9	0
C	0	0
B	9.3	0
Q2001		
E	-19.5	0
C	0	0
B	-25.0	0.7
Q2002		
E	-19.5	0
C	0	0
B	-25.4	0.7
Q2003		
E	4.8	4.8
C	-25.1	4.8
B	4.9	0
Q2051		
E	0	0
C	7.9	0.2
B	0	0.2
Q2052		
E	11.4	11.4
C	11.1	0.4
B	10.6	11.4
Q2053		
E	0	0
C	0	11.4
B	4.4	0
Q2054		
E	11.1	0.6
C	11.0	0.2
B	10.4	0.6
Q2055		
E	0	0
C	0	0.3
B	4.9	0
Q2061		
E	0	0
C	7.9	0.2
B	0	0.2
Q2062		

MODE PIN NO.	REC	PLAY
E	11.1	0.7
C	11.0	0.2
B	10.4	0.4
Q2063		
E	0	0
C	0	0.6
B	4.9	0
CN1		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.3	2.1
6	2.3	2.1
7	2.3	2.1
8	2.3	2.1
9	2.4	0
10	2.4	0
11	2.4	0
12	0	0
13	0	0
CN101		
1	0	0
2	-	-
3	4.7	4.7
4	-	-
5	4.8	4.8
6	0	0
7	0	0
8	0	0
9	0.5	0.5
10	0	0
11	0	0
12	0	0
13	4.9	4.9
14	4.9	4.9
15	0	0
16	0	0
17	0.4	0.4
18	0	0
19	3.3	3.3
20	0	0
21	0	0
22	2.1	2.1
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
CN102		
1	1.4	1.4
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	1.4	1.4
8	1.9	1.9
9	1.3	2.4
10	4.9	4.9
11	2.3	2.3
12	3.0	3.0</

MODE PIN NO.	REC	PLAY
C	5.8	5.8
B	0	0
Q2253		
E	0	0
C	0	0
B	4.6	4.6
Q2255		
E	0	0
C	0	0
B	4.1	4.1
Q2256		
E	0	0
C	4.2	4.2
B	0	0
Q2258		
E	4.4	0
C	4.4	1.6
B	0.2	4.9
Q2601		
E	0	0
C	0	0
B	0	-0.6
Q2602		
E	0	0
C	0	0
B	0	-0.4
Q2603		
E	0	0
C	8.1	8.1
B	0	0
Q2604		
E	0	0
C	8.1	8.1
B	0	0
Q2605		
E	0	0
C	8.1	8.1
B	0	0
CN2601		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	2.5	2.5
7	0	0
8	2.5	2.5

<SYSCON>

MODE PIN NO.	REC	PLAY
IC3001		
1	2.8	2.5
2	0	0
3	1.9	2.5
4	2.5	2.5
5	2.5	2.5
6	2.6	2.6
7	2.5	2.5
8	2.5	2.5
9	5.1	5.1
10	5.1	5.1
11	0	0
12	0.4	0.7
13	0	1.5
14	4.8	4.8

MODE PIN NO.	REC	PLAY
15	5.0	5.0
16	4.9	0
17	0	0
18	0	0
19	0	0
20	0.3	4.3
21	4.0	4.0
22	4.1	2.7
23	0	0
24	4.9	4.9
25	5.0	5.0
26	0	0
27	5.1	5.1
28	5.0	5.0
29	5.0	5.0
30	0.5	0.5
31	5.1	5.1
32	0	0
33	0	0
34	4.9	4.9
35	0	0
36	0	0
37	5.0	5.0
38	1.9	1.9
39	4.8	4.8
40	0	0
41	5.1	5.1
42	4.6	4.6
43	0	0
44	0	3.4
45	5.1	5.1
46	5.1	-
47	0	0
48	5.1	5.1
49	5.1	4.8
50	5.1	4.7
51	0.2	2.7
52	0.2	2.7
53	5.1	4.8
54	0.2	-
55	4.8	-
56	4.5	0
57	0	0
58	0	0
59	0.6	0.6
60	0	0
61	0	0
62	0	0
63	0	0
64	-	-
65	-	-
66	-	-
67	-	-
68	0	0
69	-	-
70	5.0	5.0
71	5.0	5.0
72	5.0	5.0
73	5.0	5.0
74	0	0
75	4.6	4.6
76	4.7	0.1
77	0	0
78	0	0
79	0	0
80	0	0
81	0	0
82	5.0	5.0
83	-	-
84	0	0
85	3.6	3.6
86	5.0	5.0

MODE PIN NO.	REC	PLAY
87	5.0	0
88	4.8	0
89	0	0
90	0	0
91	0	0
92	4.9	4.9
93	5.0	5.0
94	0	0
95	0	0
96	0	0
97	0.3	0.3
98	0.3	0.3
99	0	-
100	1.0	-
101	2.5	2.5
102	1.3	1.3
103	5.0	5.0
104	0	0
105	0	5.1
106	5.0	5.0
107	5.0	0
108	0.1	1.6
109	1.6	0.2
110	5.0	0
111	0	0
112	2.5	2.5
IC3002		
1	5.0	5.0
2	5.0	5.0
3	0	0
IC3003		
1	0	0
2	0	0
3	0	0
4	0	0
5	4.7	4.7
6	4.6	4.6
7	0	0
8	5.0	5.0
IC3004		
1	0	0
2	12.1	12.1
3	-	-
4	-	-
5	0	0
6	12.1	12.1
7	0	0
8	12.1	12.1
9	0	0
Q3001		
E	0	0
C	12.1	12.1
B	0	0
Q3002		
E	0	0
C	4.8	4.8
Q3003		
E	0	0
C	5.0	5.0
Q3004		
E	0	0
C	0	0
B	0.7	0.7
Q3005		
E	5.1	5.1
C	5.8	5.8
B	5.7	5.7
Q3008		
E	0	0
C	4.8	4.8
B	0	0
Q4001		

MODE PIN NO.	REC	PLAY
E	0	0
C	0	0
B	4.9	4.9
CN3001		
1	11.4	11.4
2	0	0
3	1.4	1.4
4	0.1	0.1
5	1.5	1.5
CN3002		
1	2.1	0
2	2.7	0
CN3003		
1	2.4	2.4
2	4.8	4.8
3	5.0	5.0
4	2.4	2.4
5	11.3	11.3
6	0	0
7	0	0
8	0	0
CN3004		
1	0	0
2	5.0	5.0
3	5.0	5.0
4	0	0
5	0	0
CN3011		
1	0	0
2	5.0	5.0
3	4.8	4.8
4	2.7	2.7
5	4.8	4.8
6	4.8	4.8
7	0	0
8	5.0	5.0
9	-18.4	-18.4
10	-14.8	-14.8
11	-27.3	-27.3

<SUB CPU>

MODE PIN NO.	REC	PLAY
IC3301		
1	0	5.0
2	5.0	5.0
3	0	0
4	0	0
5	0	0
6	0	0
7	5.0	5.0
8	4.2	4.2
9	4.1	4.1
10	0	0
11	5.0	5.0
12	0	0
13	5.0	5.0
14	0	0
15	4.9	0
16	0	0
17	-	-
18	5.0	5.0
19	5.0	5.0
20	5.0	5.0
21	5.0	5.0
22	5.0	5.0

MODE PIN NO.	REC	PLAY
23	5.0	5.0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
31	0	0
32	0	0
33	0	0
34	5.0	5.0
35	0	0
36	0	0
37	0	0
38	5.0	5.0
39	0	0
40	5.0	0
41	5.0	0
42	5.0	0
43	0	0
44	0	0
45	0	0
46	5.0	5.0
47	0	0
48	0	0
49	5.0	5.0
50	0	0
51	0	0
52	0	0
53	0	0
54	4.8	4.8
55	0	0
56	0	0
57	0	0
58	0	0
59	0	0
60	5.0	5.0
61	0	0
62	0	0
63	0	0
64	0.3	0.3
65	0	0
66	0	0
67	0	0
68	5.0	5.0
69	2.8	2.8
70	2.5	2.5
71	0	0
72	0	0
73	5.0	5.0
74	5.0	5.0
75	0	0
76	0	0
77	5.0	5.0
78	3.1	3.1
79	3.1	3.1
80	0	0
IC3302		
1	5.0	5.0
2	4.8	4.8
3	0	0
4	2.8	2.8
5	2.8	2.8
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	3.6	3.6
13	5.0	5.0

MODE PIN NO.	REC	PLAY
14	3.6	3.6
15	4.8	4.8
16	5.0	5.0
Q3301		
E	0	0
C	0	0
B	4.9	4.9
Q3302		
E	0	0
C	3.0	3.0
B	0	0
Q3303		
E	0	0
C	3.0	3.0
B	0	0
Q3304		
E	0	0
C	0	0
B	4.9	4.9
Q3305		
E	0	0
C	0.8	0.8
B	3.9	3.9
Q3306		
E	0	0
C	2.7	2.7
B	0.8	0.8
CN3301		
1	4.2	4.2
2	2.5	2.5
3	0	0
4	3.0	3.0
5	3.0	3.0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0

<TUNER>

MODE PIN NO.	REC	PLAY
IC6080		
1	10.9	10.9
2	1.6	1.6
3	1.0	1.0
4	0	0
5	4.0	4.0
6	4.0	4.0
7	4.0	0
8	11.4	11.4
Q6030		
E	0.7	0.7
C	0	0
B	0	0
Q6031		
E	0	0
C	0	0
B	4.6	4.6
Q6032		
E	0	0
C	0	0
B	4.6	4.6
CN6701		
1	0	0
2	4.7	4.7

MODE PIN NO.	REC	PLAY
3	4.6	4.6
4	4.5	4.5
5	0	0
6	0	0
7	4.0	4.0
8	0	0
9	0	0
10	2.3	2.3

<TERMINAL(MAIN)>

MODE PIN NO.	REC	PLAY
IC7501		
1	5.8	5.8
2	5.0	5.0
3	0	0
4	4.9	4.9
CN7503		
1	0	0
2	0	0
3	1.6	1.6
4	0	0
5	1.4	1.4
6	10.7	10.7
7	0.7	0.7
8	4.9	4.9
9	0	0
10	5.0	5.0
11	0	0
CN7504		
1	0	0
2	0.5	0.5
3	0	0
4	4.6	4.6
5	4.6	4.6
6	5.1	5.1
7	4.9	4.9
CN7505		
1	0	0
2	4.5	4.5
3	0	0
4	2.0	2.0
5	4.9	4.9
6	0	0
7	0	0
8	3.6	3.6
9	4.8	4.8
10	2.8	2.8
11	0	0
12	0	0
CN7506		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
CN7507		
1	0.2	0.2
2	0	0
3	0	0

MODE PIN NO.	REC	PLAY
E	0.7	0.7
C	3.0	3.0
B	1.3	1.3
Q1016		
E	0	0
C	0	0
B	5.0	5.0
Q1021		
E	3.1	3.1
C	0	0
B	2.4	2.4
Q1022		
E	0	0
C	4.4	0
B	0.3	4.0
CN1001		
1	0	0
2	-	-
3	4.7	4.7
4	-	-
5	4.8	4.8
6	0	0
7	0	0
8	0	0
9	0.5	0.5
10	0	0
11	0	0
12	0	0
13	4.9	4.9
14	4.9	4.9
15	0	0
16	0	0
17	0.4	0.4
18	0	0
19	3.3	3.3
20	0	0
21	0	0
22	2.1	2.1
23	0	0
24	0	0
25	0	0
26	0	0
27	0	0
28	0	0
29	0	0
30	0	0
CN1002		
1	1.4	1.4
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	1.4	1.4
8	1.9	1.9
9	1.3	2.4
10	4.9	4.9
11	2.3	2.3
12	3.0	3.0
13	0	0
14	0	0
15	2.3	2.1
16	0	0
17	4.8	4.8
18	4.7	4.7
19	4.9	4.9
20	4.9	4.9
21	2.3	2.3
22	0	0
23	2.4	2.4
24	0	0
25	0	0

MODE PIN NO.	REC	PLAY
26	2.3	2.3
27	1.8	1.8
28	0	0
29	0	0
30	0.2	0
CN1003		
1	2.1	2.1
2	0	0
3	2.3	2.3
4	0	0
5	2.0	2.0
6	0	0
7	2.7	2.7

<3D SVHS(Y/C SEP)>

MODE PIN NO.	REC	PLAY
IC1401		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-

MODE PIN NO.	REC	PLAY
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
65	-	-
66	-	-
67	-	-
68	-	-
69	-	-
70	-	-
71	-	-
72	-	-
73	-	-
74	-	-
75	-	-
76	-	-
77	-	-
78	-	-
79	-	-
80	-	-
81	-	-
82	-	-
83	-	-
84	-	-
85	-	-
86	-	-
87	-	-
88	-	-
89	-	-
90	-	-
91	-	-
92	-	-
93	-	-
94	-	-
95	-	-
96	-	-
97	-	-
98	-	-
99	-	-
100	-	-
IC1402		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-

MODE PIN NO.	REC	PLAY
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
Q1401		
E	-	-
C	-	-
B	-	-
Q1402		
E	-	-
C	-	-
B	-	-
Q1403		
E	-	-
C	-	-
B	-	-
Q1404		
E	-	-
C	-	-
B	-	-
Q1405		
E	-	-
C	-	-
B	-	-
Q1406		
E	-	-
C	-	-
B	-	-
Q1407		
E	-	-
C	-	-
B	-	-
Q1408		
E	-	-
C	-	-
B	-	-
Q1409		
E	-	-
C	-	-
B	-	-
Q1410		
E	-	-
C	-	-
B	-	-
Q1411		
E	-	-
C	-	-
B	-	-
Q1412		
E	-	-
C	-	-
B	-	-
Q1413		
E	-	-
C	-	-
B	-	-
Q1414		
E	-	-
C	-	-
B	-	-
Q1416		
E	-	-
C	-	-
B	-	-
Q1417		
E	-	-

MODE PIN NO.	REC	PLAY
C	-	-
B	-	-
Q1418		
E	-	-
C	-	-
B	-	-

<TERMINAL>

MODE PIN NO.	REC	PLAY
IC7101		
1	1.2	1.2
2	4.8	4.8
3	1.9	1.9
4	0	0
IC7102		
1	4.7	4.7
2	0	0
3	4.8	4.8
4	4.5	4.5
5	4.8	4.8
6	10.5	10.5
7	6.3	6.3
8	0	0
IC7103		
1	1.7	1.7
2	0	0
3	1.9	1.9
4	4.5	4.5
5	1.7	1.7
6	4.9	4.9
7	2.2	2.2
8	0	0
IC7104		
1	1.8	1.8
2	0	0
3	1.8	1.8
4	0	0
5	1.9	1.9
6	4.8	4.8
7	1.0	1.0
8	0	0
IC7105		
1	2.7	2.7
2	0	0
3	2.7	2.7
4	0	0
5	2.7	2.7
6	4.9	4.9
7	2.0	2.0
8	0	0
IC7106		
1	0.3	0.3
2	1.2	1.2
3	1.9	1.9
4	0	0
5	1.9	1.9
6	0	0
7	2.0	2.0
8	0	0
9	2.0	2.0
10	2.0	2.0
11	2.0	2.0
12	2.0	2.0
13	0	0
14	0	0

MODE PIN NO.	REC	PLAY
15	2.4	2.4
16	4.8	4.8
IC7107		
1	0	0
2	2.6	2.6
3	5.0	5.0
4	0	0
5	0	0
6	2.4	2.4
7	2.4	2.4
8	4.9	4.9
9	3.9	3.9
10	4.6	4.6
11	3.0	3.0
12	4.8	4.8
13	2.5	2.5
14	0	0
15	2.6	2.6
16	0.8	0.1
17	4.9	4.9
18	2.9	2.9
19	0	0
20	4.5	4.5
21	4.9	4.9
22	3.5	3.5
23	4.9	4.9
24	4.9	4.9
IC7108		
1	4.5	4.5
2	2.9	2.9
3	5.0	5.0
4	1.9	1.9
5	1.6	1.6
6	2.2	2.2
7	2.9	2.9
8	0	0
9	2.9	2.9
10	0	0
11	2.6	2.6
12	3.1	3.1
13	2.5	2.5
14	2.3	2.3
IC7110		
1	2.7	2.7
2	0	0
3	2.7	2.7
4	0	0
5	2.7	2.7
6	4.9	4.9
7	2.0	2.0
8	0	0
IC7111		
1	3.4	3.4
2	0	0
3	3.4	3.4
4	0	0
5	4.0	3.6
6	10.7	10.7
7	2.6	2.6
8	0	0
IC7112		
1	2.7	2.7
2	0	0
3	2.7	2.7
4	0	0
5	0	0
6	4.9	4.9
7	2.0	2.0
8	0	0
IC7113		
1	1.6	1.6
2	0	0

MODE PIN NO.	REC	PLAY
3	1.6	1.6
4	10.7	10.7
5	1.9	1.9
6	0	0
7	4.7	4.7
8	10.6	10.6
9	4.7	4.7
10	0	0
11	4.7	4.7
12	0	0
13	4.7	4.7
14	4.6	4.6
15	5.4	5.4
16	4.7	4.7
17	5.4	5.4
18	4.7	4.7
19	10.7	10.7
20	2.4	2.4
21	1.3	1.3
22	1.3	1.3
23	2.5	2.5
24	2.0	2.0
IC7114		
1	6.0	6.0
2	0	0
3	6.0	6.0
4	0	0
5	0	0
6	10.7	10.7
7	5.3	5.3
8	0	0
Q7101		
E	2.8	2.8
C	0	0
B	2.1	2.1
Q7102		
E	3.5	3.5
C	4.8	4.8
B	4.2	4.2
Q7103		
E	3.1	3.1
C	4.8	4.8
B	3.8	3.8
Q7104		
E	2.9	2.9
C	0	0
B	2.3	2.3
Q7105		
E	3.2	3.2
C	4.9	4.9
B	3.9	3.9
Q7106		
E	1.2	1.2
C	4.8	4.8
B	1.9	1.9
Q7107		
E	1.2	1.2
C	4.9	4.9
B	0.5	0.5
Q7108		
E	1.5	1.5
C	0	0
B	0.8	0.8
Q7109		
E	1.1	1.1
C	4.8	4.8
B	1.7	1.7
Q7110		
E	1.1	1.1
C	4.8	4.8
B	0.5	0.5
Q7111		

MODE PIN NO.	REC	PLAY
E	1.4	1.4
C	0	0
B	0.8	0.8
Q7112		
E	1.4	1.4
C	4.9	4.9
B	2.0	2.0
Q7113		
E	0.6	0.6
C	0	0
B	0	0
Q7114		
E	0	0
C	0.6	0.6
B	0	0
Q7115		
E	0	0
C	0.6	0.6
B	0	0
Q7116		
E	0	0
C	1.7	1.7
B	0	0
Q7117		
E	0	0
C	0	0
B	0.8	0.8
Q7118		
E	0	0
C	2.4	2.4
B	0.4	0.4
Q7119		
E	0	0
C	0	0
B	0.8	0.8
Q7121		
E	0	0
C	0	0
B	0	0
Q7122		
E	2.6	2.6
C	0	0
B	2.0	2.0
Q7123		
E	3.1	3.1
C	4.8	4.8
B	3.7	3.7
Q7124		
E	1.7	1.7
C	0	0
B	1.0	1.0
Q7125		
E	1.1	1.1
C	4.1	4.1
B	1.6	1.6
Q7126		
E	4.7	4.7
C	2.0	2.0
B	4.1	4.1
Q7127		
E	2.6	2.6
C	0	0
B	2.0	2.0
Q7128		
E	1.8	1.8
C	4.9	4.9
B	2.4	2.4
Q7129		
E	3.4	3.4
C	4.9	4.9
B	4.0	4.0
Q7130		

MODE PIN NO.	REC	PLAY
32	3.9	3.9
33	3.9	3.9
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-
41	-	-
42	-	-
43	-	-
44	-	-
Q6701		
E	-	-
C	-	-
B	-	-
CN6701		
1	0	0
2	4.7	4.7
3	4.6	4.6
4	4.5	4.5
5	0	0
6	0	0
7	4.0	4.0
8	0	0
9	0	0
10	2.3	2.3

<MDA>		
MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	1.0	1.0
3	4.9	4.9
4	1.0	1.0
5	0	0
6	4.5	4.5
7	1.0	1.0
8	0	0
9	0	0
10	0	0
11	0	0
12	6.4	6.4
13	0	0
14	0.5	0.5
15	0	0
16	0	0
17	0.5	0.5
18	4.9	4.9
19	0.5	0.5
20	4.5	4.5
21	4.6	4.6
22	4.6	4.6
23	2.5	2.5
24	2.5	2.5
25	2.5	2.5
26	2.5	2.5
27	2.5	2.5
28	2.5	2.5
29	1.5	1.5
30	2.5	2.5
31	2.5	2.5
32	2.5	2.5
33	5.0	5.0

MODE PIN NO.	REC	PLAY
34	0.2	0.2
35	0.6	0.6
36	0.5	0.5
37	1.2	1.2
38	1.4	1.4
39	5.0	5.0
40	0	0
41	0	0
42	3.0	3.0
43	0	0
44	3.0	3.0
45	3.0	3.0
46	0	0
47	0	0
48	0	0
49	0	0
50	0	0
51	0	0
52	0	0
53	1.5	1.5
54	1.5	1.5
55	0.6	0.6
56	2.8	2.8
57	2.1	2.1
58	0	0
59	0.7	0.7
60	0	0
61	2.5	2.5
62	2.7	2.7
63	2.2	2.2
64	2.5	2.5
65	2.5	2.5
66	2.5	2.5
67	2.5	2.5
68	1.5	1.5
69	0	0
70	1.0	1.0
71	1.0	1.0
72	1.0	1.0
73	1.0	1.0
74	2.5	2.5
75	2.5	2.5
76	2.5	2.5
77	0.7	0.7
78	4.5	4.5
79	4.6	4.6
80	4.5	4.5
IC1602		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
QA1601		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-

MODE PIN NO.	REC	PLAY
16	-	-
Q1601		
E	-	-
C	-	-
B	-	-
Q1602		
E	-	-
C	-	-
B	-	-
Q1603		
E	-	-
C	-	-
B	-	-
Q1604		
E	-	-
C	-	-
B	-	-
Q1605		
E	-	-
C	-	-
B	-	-
CN1601		
1	4.9	4.9
2	0	0
3	6.4	6.4
4	5.0	5.0
5	0	0
CN1602		
1	1.3	0.6
2	1.3	0.6
CN1603		
1	2.5	2.5
2	2.5	2.5
3	1.0	1.0
4	1.0	1.0
5	1.0	1.0
6	1.0	1.0
7	1.0	1.0
8	1.0	1.0
9	1.0	1.0
10	2.5	2.5
11	0	0
CN1604		
1	0.6	0.6
2	0.5	0.5
3	0.6	0.6
4	0.5	0.5
5	0.5	0.5
6	0.5	0.5
7	5.0	5.0
8	2.3	2.3
9	2.5	2.5
10	2.5	2.5
11	2.5	2.5
12	2.7	2.7
13	2.5	2.5
14	2.5	2.5
15	2.5	2.5
16	2.5	2.5
17	0	0
18	2.5	2.5
CN1605		
1	3.0	3.0
2	3.0	3.0
3	0	0
4	0	0
CN1606		
1	3.0	3.0
2	3.0	3.0
3	0	0
4	0	0
5	0	0

MODE PIN NO.	REC	PLAY
6	0	0
7	0	0
8	1.3	1.3
9	1.5	1.5
10	0	0
11	3.0	3.0
12	3.0	3.0
13	3.0	3.0
14	0	0
15	0	0
16	3.0	3.0
17	1.5	1.5
18	1.5	1.5
19	2.8	2.8
20	0	0
CN1607		
1	0	0
2	0	0
3	0	0
4	0	0

<DV PRE/REC>		
MODE PIN NO.	REC	PLAY
IC9001		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-	-
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	-	-
39	-	-
40	-	-

MODE PIN NO.	REC	PLAY
41	-	-
42	-	-
43	-	-
44	-	-
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	-	-
51	-	-
52	-	-
53	-	-
54	-	-
55	-	-
56	-	-
57	-	-
58	-	-
59	-	-
60	-	-
61	-	-
62	-	-
63	-	-
64	-	-
Q9003		
E	-	-
C	-	-
B	-	-
Q9005		
E	-	-
C	-	-
B	-	-
Q9006		
E	-	-
C	-	-
B	-	-
Q9007		
E	-	-
C	-	-
B	-	-
CN9001		
1	0	0
2	0	0
3	4.9	4.9
4	0	0
5	3.0	0
6	0	3.0
7	1.5	1.5
8	3.0	3.0
9	0	3.0
10	2.9	0
11	0	0
12	0	0
13	0	0
14	2.6	1.1
15	3.0	1.9
16	2.3	1.1
17	1.1	0
18	1.9	1.9
19	0	0
20	3.1	3.1
CN9002		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-

<DISPLAY>		
MODE PIN NO.	REC	PLAY
IC1251		
1	0	0
2	0	0
3	0	0
4	0	0
5	2.7	2.7
6	2.8	2.8
7	0	0
8	4.7	4.7
9	4.7	4.7
10	0.2	0.2
11	0.2	0.8
12	0.8	1.0
13	0.7	0.9
14	4.7	4.7
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-26.7	-26.7
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	4.7	4.7
39	4.7	4.7
40	4.7	4.7
41	0.2	0.2
42	0.2	0.2
43	0	0
44	2.5	2.5
IC1252		
1	4.9	4.9
2	5.0	5.0
3	0	0
CN1252		
1	-26.7	-26.7
2	-14.5	-14.5
3	-17.8	-17.8
4	0	0
5	4.9	4.9
6	4.8	4.8
7	2.7	2.7
8	4.7	4.7
9	4.9	4.9
10	0	0
11	0	0
12	0	0
13	0	0
14	3.3	3.3
15	1.0	1.0
FW1251		
1	2.5	2.5
2	4.7	4.7

<LED2>		
MODE PIN NO.	REC	PLAY
FW1261		
1	2.5	2.5
2	4.7	4.7

<DISPLAY/SW>		
MODE PIN NO.	REC	PLAY
IC1201		
1	5.0	5.0
2	0	0
3	0	0
4	0	0
5	2.8	2.8
6	2.8	2.8
7	0	0
8	4.8	4.8
9	4.9	4.9
10	0	0
11	0	0
12	0	0
13	0	0
14	5.0	5.0
15	-	-
16	-	-
17	-	-
18	-	-
19	-	-
20	-	-
21	-	-
22	-	-
23	-	-
24	-	-
25	-	-
26	-	-
27	-27.2	-27.2
28	-	-
29	-	-
30	-	-
31	-	-
32	-	-
33	-	-
34	-	-
35	-	-
36	-	-
37	-	-
38	5.0	5.0
39	5.0	5.0
40	5.0	5.0
41	0	0
42	0	0
43	0	0
44	2.8	2.8
CN1201		
1	-27.3	-27.3
2	-14.8	-14.8
3	-18.4	-18.4
4	5.0	5.0
5	0	0
6	4.8	4.8
7	4.8	4.8
8	2.7	2.7
9	4.8	4.8
10	5.0	5.0
11	0	0
CN1202		
1	3.4	3.1
2	-	-

MODE PIN NO.	REC	PLAY
3	0	0
4	0	0
5	0	0
6	0	0
7	5.1	5.1
8	4.8	4.8
9	-	2.8
10	4.9	4.9
11	5.1	5.1
12	0	0
13	-18.3	-18.3
14	-14.8	-14.8
15	-27.2	-27.2
CN1211		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0.2	0.2
FW1201		
1	3.0	3.0
2	5.1	5.1
FW1202		
1	0	0
2	0	0
3	-	-

MODE PIN NO.	REC	PLAY
2	3.0	3.0
3	0	0
4	3.0	3.0
5	3.0	3.0
6	3.0	3.0
7	0	0
8	3.0	3.0
IC1004		
1	0	0
2	3.0	3.0
3	1.9	2.2
4	0	0
5	3.0	3.0
6	0.5	0.5
7	0.4	0.3
8	3.0	3.0
IC1005		
1	3.0	3.0
2	3.0	3.0
3	0	0
4	0	0
IC1007		
1	0	0
2	0	0
3	0	0
4	0	0
5	3.0	3.0
IC1012		
1	0	0
2	0.6	0.6
3	3.0	3.0
4	0	0
5	0	0
6	2.4	2.4
7	3.0	3.0
8	3.0	3.0
Q1001		
E	0	0
C	4.0	4.0
B	0	0
Q1002		
E	3.0	3.0
C	3.0	3.0
B	2.4	2.4
Q1003		
E	0	0
C	0	0
B	3.0	3.0
Q1004		
E	2.3	2.3
C	2.2	2.2
B	1.6	1.6
Q1005		
E	0	0
C	0	0
B	3.0	3.0
Q1006		
E	4.9	4.9
C	4.9	4.9
B	4.4	4.2
Q1007		
E	0	0
C	0	0
B	3.0	3.0
Q1009		
E	0	0
C	0	0
B	0.6	0.6
Q1010		
E	5.1	5.1
C	5.1	5.1
B	4.5	4.5

MODE PIN NO.	REC	PLAY
Q1011		
E	0	0
C	0	0
B	3.0	3.0
Q1012		
E	3.1	3.1
C	3.1	3.1
B	2.4	2.4
Q1013		
E	0	0
C	0	0
B	3.0	3.0
CN1001		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	3.0	3.0
7	3.0	3.0
8	0	0
9	2.5	2.5
10	4.2	4.2
CN1002		
1	5.0	5.0
2	0	0
3	3.1	3.1
4	0	0
5	2.4	2.4
6	0	0
7	0	0
CN1004		
1	0	0
2	0	0
3	3.0	3.0
4	0	0
5	3.0	3.0
6	2.4	2.4
7	3.0	3.0
8	3.0	3.0
9	1.9	1.9
10	0	0
11	2.1	1.2
12	0	0
13	0	0
14	0	0
15	0.1	0.1
16	3.0	3.0
17	2.8	2.8
18	2.4	2.4
19	3.9	3.9
20	2.4	2.4
21	0	0
22	3.0	1.8
23	1.2	1.2
24	1.5	1.5
25	0	0
26	0	0

<MSD CPU>

MODE PIN NO.	REC	PLAY
IC1401		
1	0	0
2	3.0	3.0
3	3.0	3.0
4	3.0	3.0

MODE PIN NO.	REC	PLAY
5	0	0
6	3.0	3.0
7	3.0	3.0
8	0	0
9	3.4	3.4
10	3.0	3.0
11	0	0
12	3.0	3.0
13	3.0	3.0
14	3.0	3.0
15	2.9	2.9
16	0	0
17	0	0
18	0	0
19	3.0	3.0
20	-	-
21	-	-
22	0	0
23	0	0
24	3.0	3.0
25	0	0
26	0	0
27	0	0
28	3.0	3.0
29	3.0	3.0
30	0	0
31	0	0
32	0	0
33	0	0
34	0	0
35	0	0
36	0	0
37	0	0
38	0	3.0
39	0	3.0
40	0	3.0
41	3.0	3.0
42	0	0
43	3.0	3.0
44	0	0
45	3.0	3.0
46	3.0	3.0
47	0	0
48	3.0	3.0
49	0	0
50	0	0
51	0	0
52	3.0	3.0
53	0	0
54	1.5	1.5
55	1.5	1.5
56	1.5	1.5
57	1.5	1.5
58	0	0
59	-	-
60	-	-
61	0	0
62	1.4	1.4
63	1.4	1.4
64	1.5	1.5
65	0	0
66	3.0	3.0
67	3.0	3.0
68	3.0	3.0
69	0	0
70	0	0
71	0	0
72	0	0
73	3.0	3.0
74	3.0	3.0
75	3.0	3.0
76	3.0	3.0

MODE PIN NO.	REC	PLAY
77	3.0	3.0
78	3.0	3.0
79	3.0	3.0
80	1.3	1.3
81	3.0	3.0
82	2.4	2.0
83	3.0	3.0
84	3.0	3.0
85	0	0
86	0	0
87	0	0
88	0	0
89	0	0
90	1.8	1.8
91	3.0	3.0
92	1.6	1.6
93	1.5	1.5
94	1.6	1.6
95	3.0	1.5
96	0	3.0
97	0	0
98	0	0
99	1.4	1.4
100	0.7	0.7
101	0	0
102	3.0	3.0
103	0	0
104	0	0
105	0	0
106	0	0
107	3.0	2.7
108	0	0
109	1.5	1.5
110	0	0
111	0	0
112	0	0
113	0	0
114	0	0
115	0	0
116	0	0
117	0	0
118	3.1	3.1
119	3.0	3.0
120	0	0
121	0	0
122	0	0
123	0	0
124	0	0
125	3.0	3.0
126	3.0	3.0
127	3.0	3.0
128	3.0	3.0
129	2.4	2.4
130	0	0
131	0	0
132	1.1	1.1
133	0	0
134	0.4	0.6
135	0	0
136	2.3	2.3
137	2.3	2.3
138	2.3	2.3
139	0.4	0.4
140	0.4	0.4
141	0.4	0.4
142	0.4	0.4
143	0.3	0.3
144	0.4	0.4
145	0.4	0.4
146	0.5	0.7
147	0.4	0.4
148	1.6	1.2

MODE PIN NO.	REC	PLAY
149	0.5	0.5
150	0.4	0.8
151	0.5	0.5
152	0.5	0.5
153	0.5	0.5
154	0.7	0.7
155	0	0
156	2.3	2.3
IC1402		
1	-	-
2	3.0	3.0
3	-	-
4	0	0
5	-	-
6	0	0
7	-	-
8	3.0	3.0
Q1401		
E	3.0	3.0
C	3.0	3.0
B	0	0
Q1402		
1(B)	0	0
2(E)	0	0
3(B)	0	0
4(C)	3.1	3.1
5(C)	3.1	3.1
Q1403		
1(E)	0	0
2(B)	0.7	0.7
3(E)	3.0	3.0
4(C)	0.6	0.6
5(C)	2.5	2.5
Q1404		
1(E)	0	0
2(B)	3.0	3.0
3(E)	3.0	3.0
4(C)	2.8	2.8
5(C)	0	0
Q1405		
E	1.7	1.7
C	0	0
B	0.6	0.6
CN1401		
1	0	0
2	3.0	3.0
3	0	0
4	1.2	1.2
5	-	-
6	3.1	3.1
7	1.2	1.2
8	-	-
9	3.0	3.0
10	3.0	3.0
11	-0.2	-0.2
12	0	0
13	3.0	3.0
14	0	0
15	0	0
CN1402		
1	0	0
2	2.8	2.8
3	1.5	1.5
4	1.5	1.5
5	3.0	3.0
6	0	0
7	0	0
8	3.0	3.0
9	3.0	3.0
10	3.0	3.0
11	0	0
12	1.5	1.5

MODE PIN NO.	REC	PLAY
13	1.3	1.3
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3.0	3.0
20	3.0	3.0

<AUDIO AD/DA>

MODE PIN NO.	REC	PLAY
IC2101		
1	3.1	3.1
2	3.1	3.1
3	1.5	1.5
4	1.5	1.5
5	1.5	1.5
6	1.5	1.5
7	3.0	3.0
8	3.0	3.0
9	1.9	1.5
10	1.5	1.5
11	1.5	1.5
12	1.0	1.0
13	0	0
14	3.0	3.0
15	0.6	1.0
16	0	0
17	0	0
18	3.0	3.0
19	1.5	1.5
20	1.5	1.5
21	1.5	1.5
22	0	0
23	3.1	3.1
24	3.1	3.1
IC2102		
1	2.6	2.6
2	2.6	2.6
3	2.5	2.5
4	5.0	5.0
5	2.6	2.6
6	2.6	2.6
7	2.6	2.6
8	2.6	2.6
9	2.6	2.6
10	2.6	2.6
11	0	0
12	2.6	2.6
13	2.6	2.6
14	2.6	2.6
Q2102		
E	2.5	2.5
C	4.9	4.9
B	3.1	3.1
CN2101		
1	2.5	2.5
2	0	0
3	2.5	2.5
4	0	0
5	0	0
6	0	0
7	0	0
8	3.0	3.0
9	3.0	3.0
10	3.0	3.0
11	0	0
12	1.5	1.5

<CAS>

MODE PIN NO.	REC	PLAY
IC3001		
1	1.0	1.0
2	0	0
3	1.0	1.0
4	1.0	1.0
5	0.6	0.6
6	0.8	0.8
7	1.0	1.0
8	0	0
9	0.5	0.5
10	0.9	0.9
11	0.9	0.9
12	0.9	0.9
13	2.1	2.1
14	2.1	2.1
15	2.1	2.1
16	1.1	1.1
17	0	0
18	0.5	0.5
19	0.9	0.9
20	1.0	1.0
21	1.0	1.0
22	1.1	1.1
23	1.2	1.2
24	1.0	1.0
25	0	0
26	0.9	0.9
27	0.9	0.9
28	0	0
29	0.9	0.9
30	0.9	0.9
31	0.9	0.9
32	0.8	0.8
33	0	0
34	0.9	0.9
35	0.9	0.9

<DV I/O>

MODE PIN NO.	REC	PLAY
86	0	0
87	3.0	3.0
88	2.9	0
89	0	2.9
90	3.0	0
91	0	3.0
92	3.0	3.0
93	1.5	1.5
94	0	0
95	0	0
96	0	0
97	1.5	1.5
98	3.0	3.0
99	0	0
100	0	0
101	2.3	2.3
102	2.3	2.3
103	0.7	0.7
104	0.5	0.5
105	0.5	0.5
106	0.5	0.5
107	0.4	0.8
108	0.6	0.4
109	1.8	1.1
110	0.4	0.4
111	2.1	2.1
112	0	0
113	0.6	0.6
114	0.4	0.6
115	0.4	0.4
116	0.3	0.3
117	0.4	0.4
118	0.4	0.4
119	0.5	0.5
120	0.4	0.4
121	2.1	2.1
122	0	0
123	2.1	2.1
124	2.1	2.1
125	0	0
126	2.1	2.1
127	0	0
128	3.0	3.0
129	0	0
130	3.0	3.0
131	1.5	1.5
132	2.7	2.7
133	0	0
134	3.0	3.0
135	0	0
136	0	0
137	0	0
138	0	0
139	0	0
140	2.1	2.1
141	0	0
142	3.0	3.0
143	0	0
144	3.0	3.0
145	0	0
146	3.0	3.0
147	3.0	3.0
148	0	0
149	0	0
150	2.1	2.1
151	1.2	1.2
152	1.3	1.3
153	1.3	1.3
154	1.3	1.3
155	2.1	2.1
156	2.1	2.1
IC3004		

MODE PIN NO.	REC	PLAY
1	3.0	3.0
2	1.1	1.1
3	1.1	1.1
4	1.2	1.2
5	1.1	1.1
6	3.0	3.0
7	1.1	1.1
8	1.1	1.3
9	1.1	1.3
10	1.1	1.3
11	-	-
12	-	-
13	0	0
14	0	0
15	2.6	2.6
16	1.0	0.5
17	0	0
18	1.1	1.4
19	1.8	1.4
20	1.8	1.4
21	1.5	1.5
22	3.0	3.0
23	0	0
24	1.3	1.4
25	1.4	1.3
26	1.5	1.3
27	1.4	1.3
28	1.5	1.5
29	1.9	1.7
30	2.0	1.9
31	2.0	1.9
32	0	0.2
33	-	-
34	-	-
35	1.1	1.3
36	1.3	1.5
37	1.2	1.5
38	1.1	1.4
39	0	0
40	1.1	1.3
41	1.1	1.3
42	1.0	1.1
43	1.1	1.1
44	0	0
IC3005		
1	3.0	0
2	2.5	2.5
3	2.5	2.5
4	0	0
5	4.9	4.9
6	2.5	2.5
7	2.5	2.5
8	4.9	4.9
9	0	0
10	1.3	1.1
11	0	2.0
12	0	1.0
13	0	1.3
14	0	1.3
15	3.0	3.0
16	0	0
17	0	1.4
18	0	1.4
19	0	1.4
20	0	1.4

MODE PIN NO.	REC	PLAY
IC3201		
1	2.3	0
2	-	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	2.9	2.9
9	0	0
10	0	0
11	2.2	2.1
12	3.1	3.0
13	2.1	2.1
14	0	0
15	0	0
16	1.5	1.5
17	0	0
18	0	0
19	0	0
20	0	0
21	0	0
22	3.1	3.0
23	2.1	2.0
24	0	0
25	1.3	1.3
26	0	0
27	1.3	1.3
28	1.8	1.7
29	0	2.9
30	2.9	0
31	3.1	3.0
32	2.3	1.6
33	1.4	1.5
34	1.6	1.8
35	1.6	1.8
36	2.7	0
37	1.6	2.2
38	0	0
39	3.0	3.0
40	0	2.9
41	3.1	1.5
42	0.3	1.5
43	3.1	3.0
44	0.3	1.5
45	0	0
46	2.1	1.3
47	0	0
48	0	0
IC3202		
1	1.9	1.9
2	0.7	0.7
3	2.3	2.3
4	3.1	3.1
5	0	0
6	2.0	2.0
7	0.7	0.7
8	2.3	2.3
9	2.9	2.9
10	0	0
11	2.0	2.0
12	0.8	0.8
13	2.5	2.5
14	3.0	3.0
15	0	0
16	2.0	2.0
17	0.8	0.8
18	2.6	2.6
19	2.9	2.9
20	0	0
21	3.0	3.0
22	0	0

MODE PIN NO.	REC	PLAY
23	2.9	0
24	3.0	3.0
25	2.9	2.9
26	0	2.9
27	2.7	2.7
28	2.8	2.8
29	2.8	2.8
30	0	0
31	1.3	1.3
32	1.2	1.2
33	1.2	1.2
34	1.2	1.2
35	2.9	2.9
36	2.3	2.3
37	0	0
38	2.9	2.9
39	0	0
40	0	0
41	2.7	0
42	1.4	1.4
43	2.9	2.9
44	0	0
45	2.9	2.9
46	1.2	1.2
47	1.1	1.1
48	0	0
49	1.4	1.4
50	3.0	3.0
51	3.0	3.0
52	2.2	2.2
53	0	0
54	1.3	1.3
55	3.0	3.0
56	3.0	3.0
57	3.0	3.0
58	1.7	1.4
59	0	0
60	1.0	1.0
61	1.0	1.0
62	1.1	1.1
63	1.0	1.0
64	1.2	1.2
65	0	0
66	2.3	2.3
67	2.2	2.2
68	1.8	0.8
69	0	0.8
70	0	0.9
71	0	0.5
72	0	0.9
73	0	0.7
74	0	0.6
75	1.8	0.9
76	0	0
77	0	0
78	0	0.7
79	0	0.6
80	0	0.6
81	0	1.0
82	0	0
83	0	0
84	0	0
85	0	0
86	0	0
87	2.2	2.2
88	2.2	2.2
89	0	0.8
90	0	0.8
91	0	0.7
92	0	0.3
93	0	1.4
94	0	0.7

MODE PIN NO.	REC	PLAY
95	0	0.5
96	0	0.5
97	1.1	1.1
98	0	0
99	1.8	0.7
100	0	0.6
101	0	0
102	0	0
103	0	0
104	0	0.5
105	0	0.6
106	0.5	1.5
107	0	0
108	2.2	2.2
109	2.2	2.2
110	1.6	0.8
111	0	0.8
112	0	0.8
113	0	0.3
114	0.5	1.4
115	0	0.7
116	0	0.5
117	0	0.6
118	0	0
119	1.0	1.0
120	0	0
121	0	0
122	0	0
123	0	0
124	0	0
125	0	0
126	0	0
127	0	0
128	0	0
129	2.9	2.9
130	2.2	2.2
131	0	0
132	0	0
133	0	0
134	0	0
135	0	0
136	0	0
137	0	0
138	0	0
139	0	0
140	0	0
141	0	0
142	0	0
143	2.3	2.9
144	2.2	2.2
145	0	0
146	3.0	3.0
147	0	0
148	0	0
149	2.9	2.9
150	2.9	2.9
151	0	0
152	0	0
153	0	0
154	0.2	0.2
155	1.6	0
156	0.3	0.3
157	1.0	1.4
158	2.0	2.0
159	0.7	0
160	0	0
161	1.4	1.4
162	0.8	0.8
163	2.9	2.9
164	0	0
165	1.4	0.4
166	2.0	2.0

MODE PIN NO.	REC	PLAY
167	0.7	0
168	0	0
169	1.4	1.4
170	0.8	0.8
171	3.0	3.0
172	0	0
173	0	0
174	2.9	2.9
175	0	0
176	2.9	2.9
IC3203		
1	5.0	5.0
2	5.0	5.0
3	1.9	1.9
4	1.5	1.5
5	0	0
6	1.8	1.8
7	3.1	3.1
8	1.9	1.9
9	0	0
10	3.0	3.0
11	0	0
12	2.0	2.0
13	2.3	2.3
14	2.4	2.4
15	2.4	2.4
16	0	0
17	0	0
18	2.0	2.0
19	0	0
20	0.4	0.4
21	0	0
22	0	0
23	1.2	0.8
24	1.1	2.9
25	2.0	2.0
26	1.9	1.9
27	0	0
28	1.9	1.9
29	2.0	2.0
30	3.0	3.0
31	3.0	3.0
32	0	0
33	2.3	2.3
34	0	0
35	3.1	3.1
36	0	0
37	2.2	2.2
38	1.6	1.6
39	0	0
40	0	0
41	1.5	1.5
42	0	0
43	5.0	5.0
44	0	0
45	1.3	1.3
46	3.3	3.3
47	3.1	3.1
48	0	0
IC3204		
1	1.0	1.0
2	0	0
3	1.0	1.0
4	1.0	1.0
5	2.5	2.5
6	0.3	0.3
7	4.2	4.2
8	3.9	3.9
9	2.6	2.6
10	5.0	5.0
11	2.0	2.0
12	2.1	2.1

MODE PIN NO.	REC	PLAY
13	2.9	2.9
14	3.2	3.2
IC3205		
1	3.0	3.0
2	0.2	0.2
3	0	0
4	0.2	0.2
5	3.1	3.1
IC3206		
1	3.9	3.9
2	4.2	4.2
3	0	0
4	0.2	0.2
5	3.1	3.0
Q3201		
E	1.9	1.9
C	3.0	3.0
B	2.4	2.4
Q3202		
E	1.7	1.7
C	3.0	3.0
B	2.3	2.3
Q3205		
E	1.4	1.4
C	5.0	5.0
B	2.0	2.0

<Y/C SEP>

MODE PIN NO.	REC	PLAY
IC3302		
1	4.8	4.8
2	2.4	2.4
3	0	0
4	2.5	2.5
5	4.9	4.9
IC3303		
1	3.1	3.1
2	0	0
3	0	0
4	0	0
5	3.1	3.1
IC3351		
1	2.9	2.9
2	4.9	4.9
3	2.5	2.5
4	3.1	3.1
5	1.0	1.0
6	4.4	4.4
7	2.1	2.1
8	2.4	2.4
9	2.6	2.6
10	0	0
11	2.9	2.9
12	2.8	2.8
13	3.2	3.2
14	4.9	4.9
15	4.9	4.9
16	3.4	3.4
17	0	0
18	3.6	3.6
19	5.0	5.0
20	4.3	4.3
21	-	2.1
22	0.2	0.2
23	3.9	3.9

MODE PIN NO.	REC	PLAY
C	0	0
B	1.1	1.7

<EQ DA>

MODE PIN NO.	REC	PLAY
IC3501		
1	3.0	2.9
2	1.2	1.2
3	0	0
4	2.0	2.0
5	1.2	1.2
6	3.1	2.9
7	1.2	1.2
8	1.3	1.3
9	1.2	1.2
10	1.1	1.1
11	1.2	1.2
12	0	0
13	1.9	1.8
14	2.2	2.2
15	1.4	1.4
16	1.6	1.9
17	1.1	1.0
18	1.1	1.1
19	1.5	1.4
20	2.1	2.2
21	2.5	2.1
22	1.8	2.2
23	1.5	2.3
24	0	0
25	1.5	1.5
26	2.9	2.9
27	2.3	2.3
28	3.1	3.1
29	2.1	2.1
30	0	0
31	1.1	1.1
32	3.1	3.1
33	2.6	2.6
34	0	0
35	1.3	1.1
36	1.3	1.1
37	3.1	3.1
38	0	1.2
39	2.1	2.0
40	1.3	1.3
41	2.0	2.0
42	1.9	1.8
43	1.9	1.9
44	1.9	1.9
45	2.9	2.9
46	1.4	1.4
47	0	0
48	2.1	1.8
49	3.0	2.9
50	1.1	1.0
51	1.1	1.0
52	0	0
53	1.7	1.6
54	1.1	1.1
55	2.5	2.5
56	1.5	1.5
57	3.0	3.0
58	1.1	1.1
59	1.8	1.8
60	0.9	0.9

MODE PIN NO.	REC	PLAY
61	0	0
62	1.9	1.9
63	3.0	3.0
64	0	0
IC3503		
1	1.4	1.4
2	2.1	2.1
3	1.3	1.3
4	3.1	3.1
5	0.9	0.9
6	1.1	1.1
7	1.4	1.4
8	1.7	1.7
9	1.4	1.4
10	1.9	1.9
11	1.3	1.3
12	3.1	3.1
13	4.9	4.9
14	2.4	2.4
15	2.3	2.3
16	0	0
17	0	0
18	1.7	1.7
19	1.3	1.3
20	2.0	2.0
21	2.0	2.0
22	2.0	2.0
23	1.5	1.5
24	1.1	1.1
25	0	0
26	3.0	3.0
27	3.0	3.0
28	0	0
29	0	0
30	0	0
31	0	0
32	1.3	1.3
Q3501		
E	0.8	0.8
C	2.6	2.6
B	1.5	1.5
Q3502		
E	0	0
C	0	0
B	2.9	2.9
Q3503		
E	2.0	2.0
C	3.0	3.0
B	2.6	2.6
Q3504		
E	1.9	1.9
C	1.9	1.9
B	1.9	1.9
Q3511		
E	1.9	1.9
C	1.9	1.9
B	1.9	1.9
Q3512		
E	0	0
C	1.9	1.9
B	0	0
Q3513		
1(E)	1.3	1.2
2(B)	1.9	1.8
3(C)	0	0
4(E)	1.9	1.8
5(B)	1.3	1.2
6(C)	2.9	2.9
CN3501		
1	3.1	3.1
2	0	0
3	1.9	1.9

MODE PIN NO.	REC	PLAY
4	1.1	0
5	2.3	1.1
6	3.0	1.9
7	2.6	1.1
8	0	0
9	0	0
10	0	0
11	2.9	0
12	0	3.0
13	3.0	3.0
14	1.5	1.5
15	0	3.0
16	3.0	0
17	0	0
18	4.9	4.9
19	0	0
20	0	0

<V OUT>

MODE PIN NO.	REC	PLAY
IC3701		
1	1.8	1.8
2	1.2	1.2
3	1.3	1.3
4	1.2	1.2
5	0	0
6	0	0
7	0	0
8	0	0
9	2.2	2.2
10	2.1	2.1
11	1.7	1.7
12	1.7	1.7
13	0	0
14	2.0	2.0
15	5.1	5.1
16	3.0	3.0
17	0	0
18	1.7	1.7
19	1.8	1.8
20	1.9	1.9
IC3702		
1	5.1	5.1
2	0	0
3	3.0	3.0
Q3701		
E	0	0
C	1.2	1.2
B	0	0
CN3701		
1	1.1	1.1
2	0	0
3	0	0
4	1.8	1.8
5	0	0
6	2.0	2.0
7	1.2	1.2
8	0	0
9	0	0.3

<DSP>

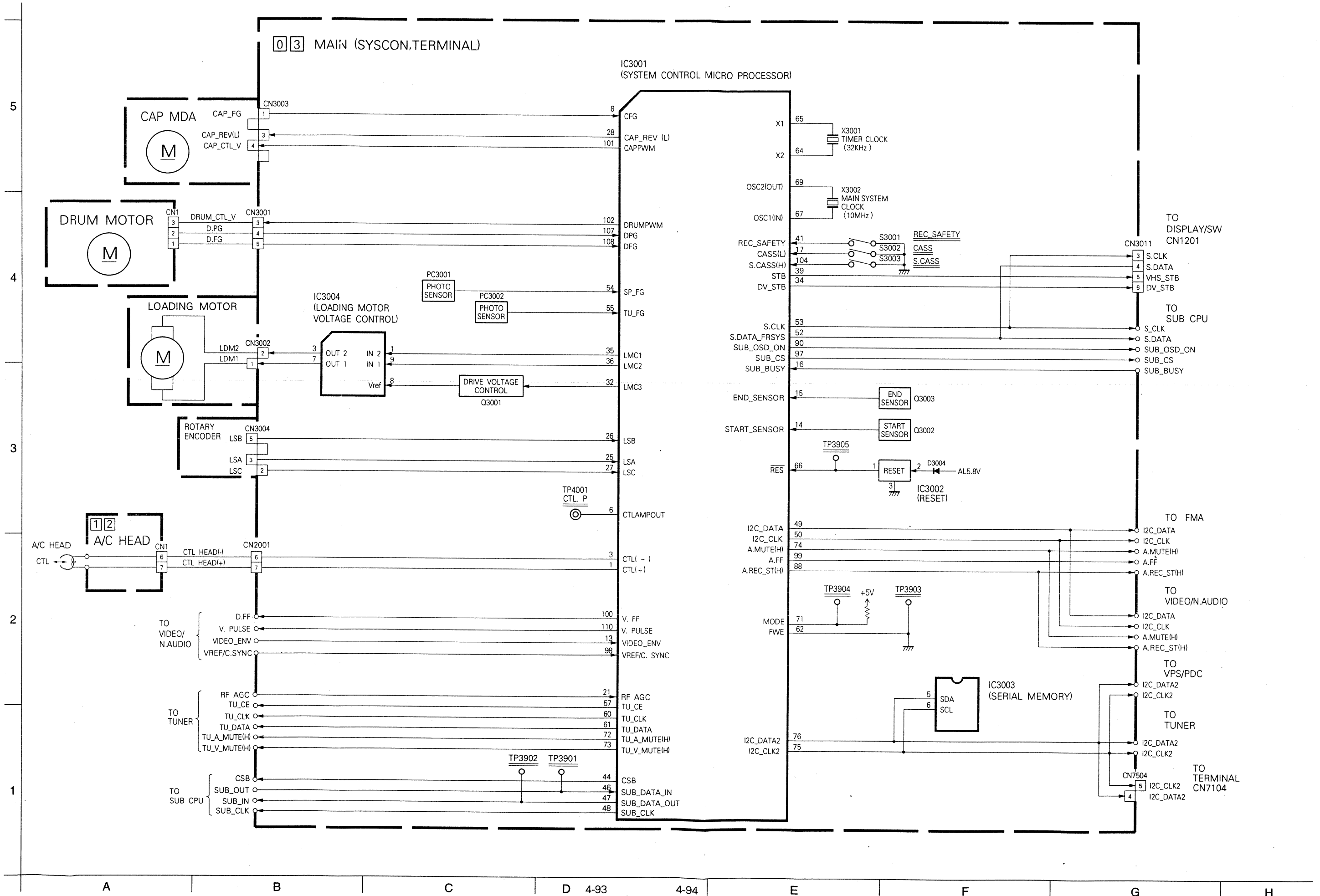
MODE PIN NO.	REC	PLAY
IC4301		
1	-	-
2	-	-
3	3.0	3.0
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	3.0	3.0
15	0	0
16	0	0
17	0	0
18	1.5	1.5
19	0	0
20	0.3	0.3
21	1.6	1.6
22	1.3	1.3
23	3.0	0
24	0	3.0
25	3.0	3.0
26	0	0
27	3.0	3.0
28	0	0
29	0	0
30	0	0
31	3.0	3.0
32	0	0
33	0	0
34	3.0	3.0
35	3.0	3.0
36	3.0	3.0
37	0	0
38	1.5	1.5
39	0	0
40	0.3	0.3
41	0	0
42	0.7	0.7
43	1.2	1.2
44	1.5	1.5
45	0	0
46	0	0
47	3.0	3.0
48	0	0
49	2.1	2.1
50	0	0
51	0	0
52	0	0
53	0	0
54	0	0
55	3.0	3.0
56	3.0	3.0
57	3.0	3.0
58	0	0
59	0	0
60	3.0	3.0
61	0	0
62	0	0
63	0	0
64	0.3	0.3
65	0	0
66	2.8	2.8
67	0	0
68	3.0	3.0
69	0	0
70	0.2	0.2
71	0.3	0.3

MODE PIN NO.	REC	PLAY
72	3.0	3.0
73	2.8	2.8
74	0	0
75	0	0
76	0	0
77	3.1	3.1
78	3.0	3.0
79	3.0	3.0
80	1.3	1.3
81	3.0	3.0
82	0	0
83	1.4	1.4
84	1.5	1.5
85	2.7	2.7
86	2.2	2.2
87	0	0
88	0	0
89	0	0
90	1.0	1.0
91	0	1.1
92	0	0.6
93	0	0.5
94	0	0.7
95	0	0.6
96	0	0.5
97	0	0.8
98	0	1.4
99	0	0.4
100	0	0.6
101	0	0.8
102	0	0.8
103	0	0
104	0	0
105	0	0
106	0	0
107	2.1	2.1
108	0	0
109	2.1	2.1
110	0	0
111	1.0	1.0
112	0	0
113	1.0	1.0
114	0	0
115	0.5	1.5
116	0	0.5
117	0	0.5
118	0	0.5
119	0	0.6
120	0	0.7
121	0	0.6
122	1.8	0.7
123	2.3	2.1
124	0	0
125	0	0.6
126	0	0.5
127	0	0.7
128	0.5	1.4
129	0	0
130	0	0.3
131	0	0.7
132	0	0.8
133	1.6	0.8
134	2.1	2.1
135	0	0
136	1.4	1.4
137	3.0	3.0
138	0	0
139	2.3	2.1
140	0	0
141	0	1.2
142	0	0.9
143	0	0.8

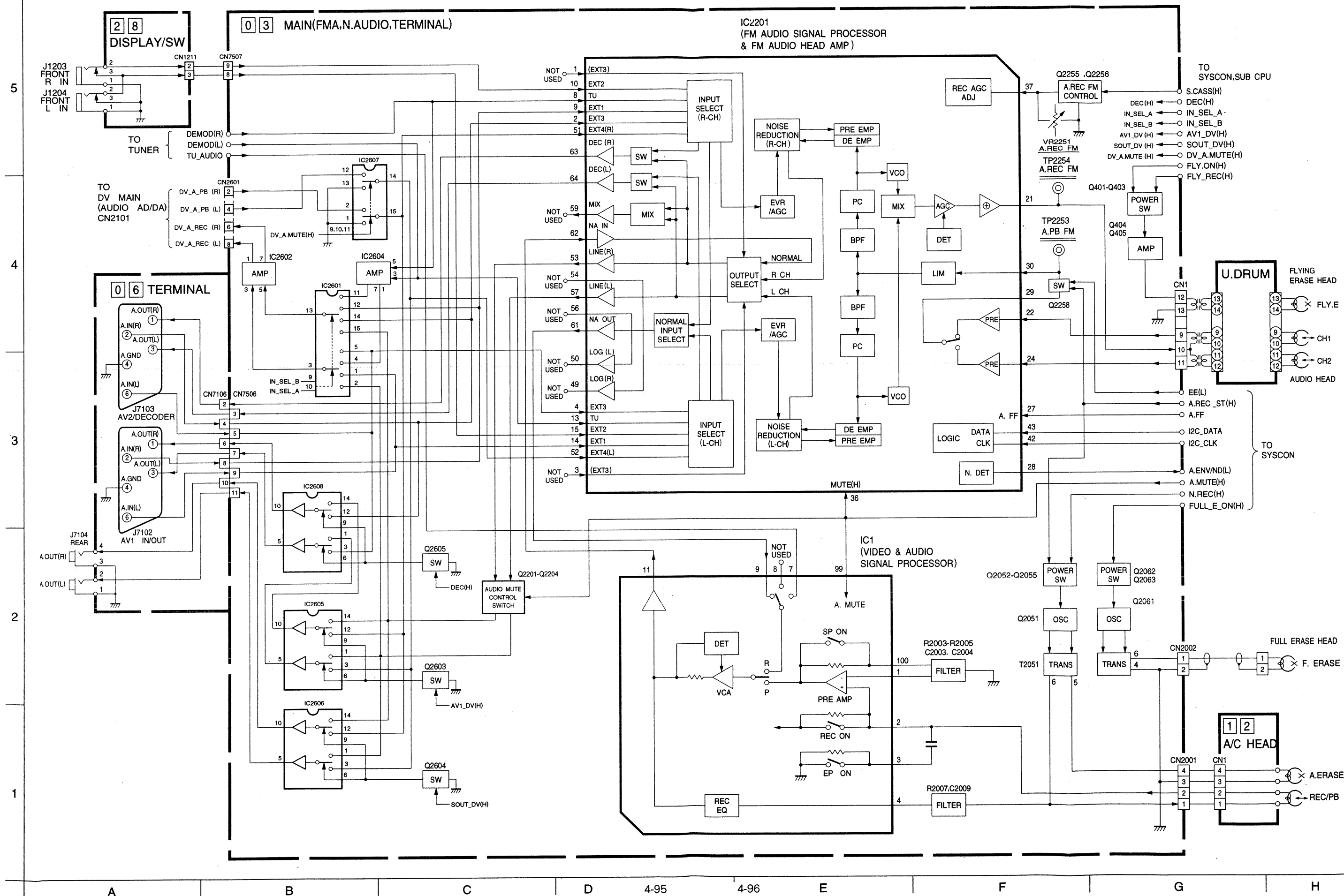
MODE PIN NO.	REC	PLAY
144	0	1.0
145	0	0.9
146	0	0.7
147	0	1.0
148	0	1.7
149	0	0.5
150	0	0.8
151	0	1.2
152	0	1.2
153	3.0	3.0
154	0	0
155	0	0
156	0	0
157	0	0
158	0	0
159	2.9	2.9
160	2.5	2.5
161	0	0
162	0	0
163	3.0	3.0
164	2.5	2.5
165	0	0
166	2.6	2.6
167	1.2	1.2
168	3.0	3.0
169	0	0
170	0	1.1
171	0	1.2
172	0	1.0
173	0	0.5
174	0	2.0
175	0	0
176	0	0.9
177	0	0.7
178	0	0.9
179	0	0.9
180	0	0.8
181	0	0.9
182	0	1.5
183	3.0	3.0
184	0	0
185	3.0	3.0
186	3.0	3.0
187	2.3	2.1
188	0	0
189	0	0
190	3.0	3.0
191	0	0
192	3.0	3.0
193	3.0	3.0
194	3.0	3.0
195	0	0
196	3.0	3.0
197	3.0	3.0
198	0	0.8
199	3.0	3.0
200	2.9	2.9
201	3.0	3.0
202	0	3.0
203	0	0
204	0	0
205	2.3	0
206	0	0
207	-	-
208	-	-
IC4302		
1	0	0
2	0	0
3	0	1.5
4	0	0.8
5	0	0.7
6	0	0.9

MODE PIN NO.	REC	PLAY
7	0	0.8
8	0	0.7
9	0	1.0
10	0	2.0
11	0	0.5
12	0	0.8
13	0	1.1
14	0	1.1
15	1.3	1.3
16	0	0
17	2.5	2.5
18	2.8	2.8
19	3.0	3.0
20	0	0
21	3.0	3.0
22	2.5	2.5
23	2.5	2.5
24	0	0
25	1.3	1.3
26	0	1.1
27	0	1.1
28	0	0.8
29	0	0.5
30	0.3	1.5
31	0	1.0
32	0	0.7
33	0	0.8
34	0	0.9
35	0	0.7
36	0	0.8
37	0	1.3
38	0	0
IC4303		
1	0	0
2	0.3	1.4
3	0	0
4	0	1.3
5	0.3	2.5
IC4304		
1	0	0
2	0	1.1
3	0	0
4	0.9	1.1
5	0.3	2.5
IC4305		
1	0	0
2	1.3	1.3
3	0	0
4	1.2	1.2
5	2.9	0
IC4306		
1	0	0
2	1.2	1.2
3	0	0
4	1.4	0
5	2.9	0
Q4301		
E	3.0	3.0
C	0.3	2.5
B	2.9	2.5
Q4302		
E	3.0	3.0
C	2.9	0
B	2.3	2.5
Q4303		
E	0	0
C	2.9	0
B	0	3.0
Q4304		
E	0	0
C	0	2.5
B	2.9	2.5

4.37 SYSTEM CONTROL/SERVO BLOCK DIAGRAM(VHS)

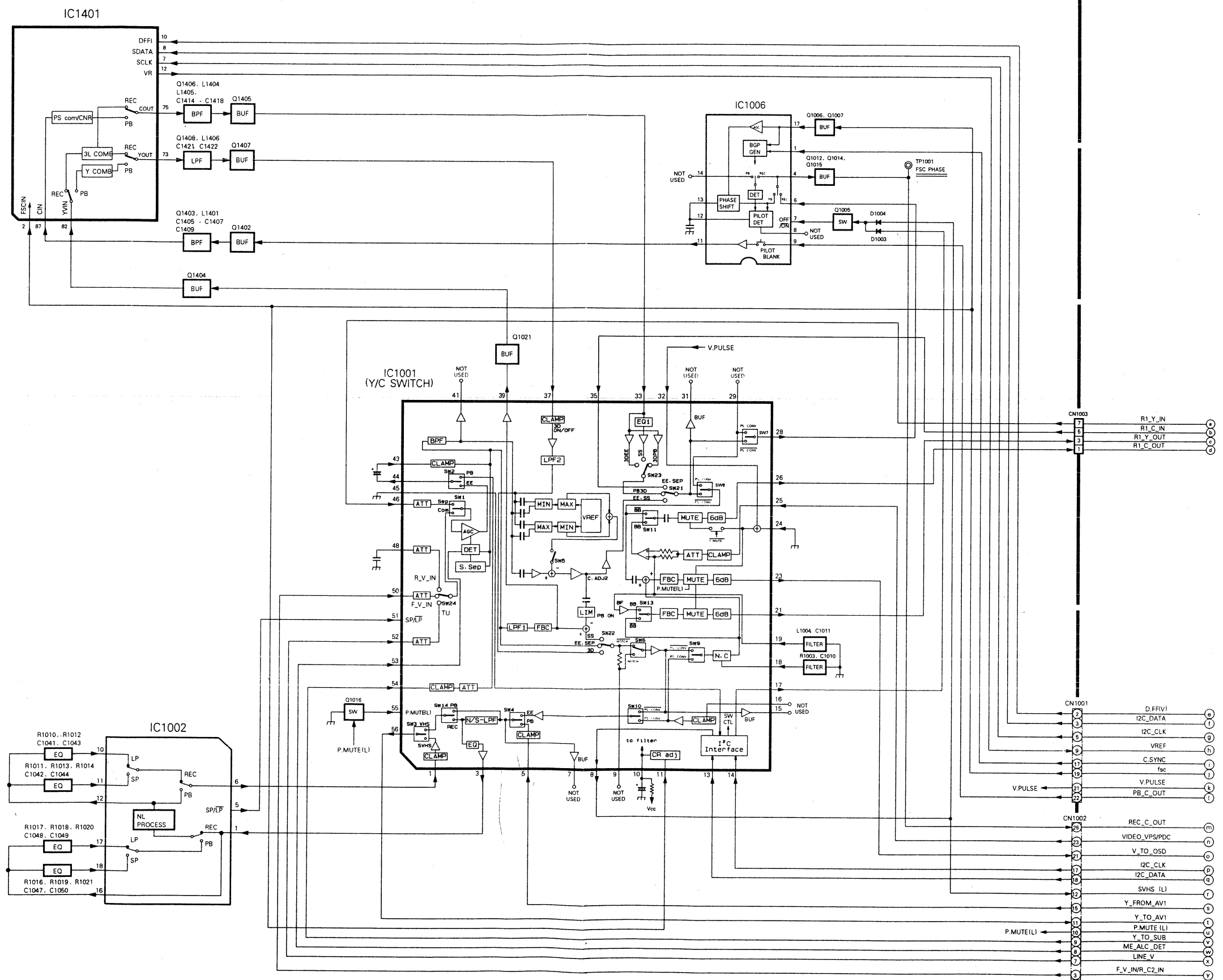


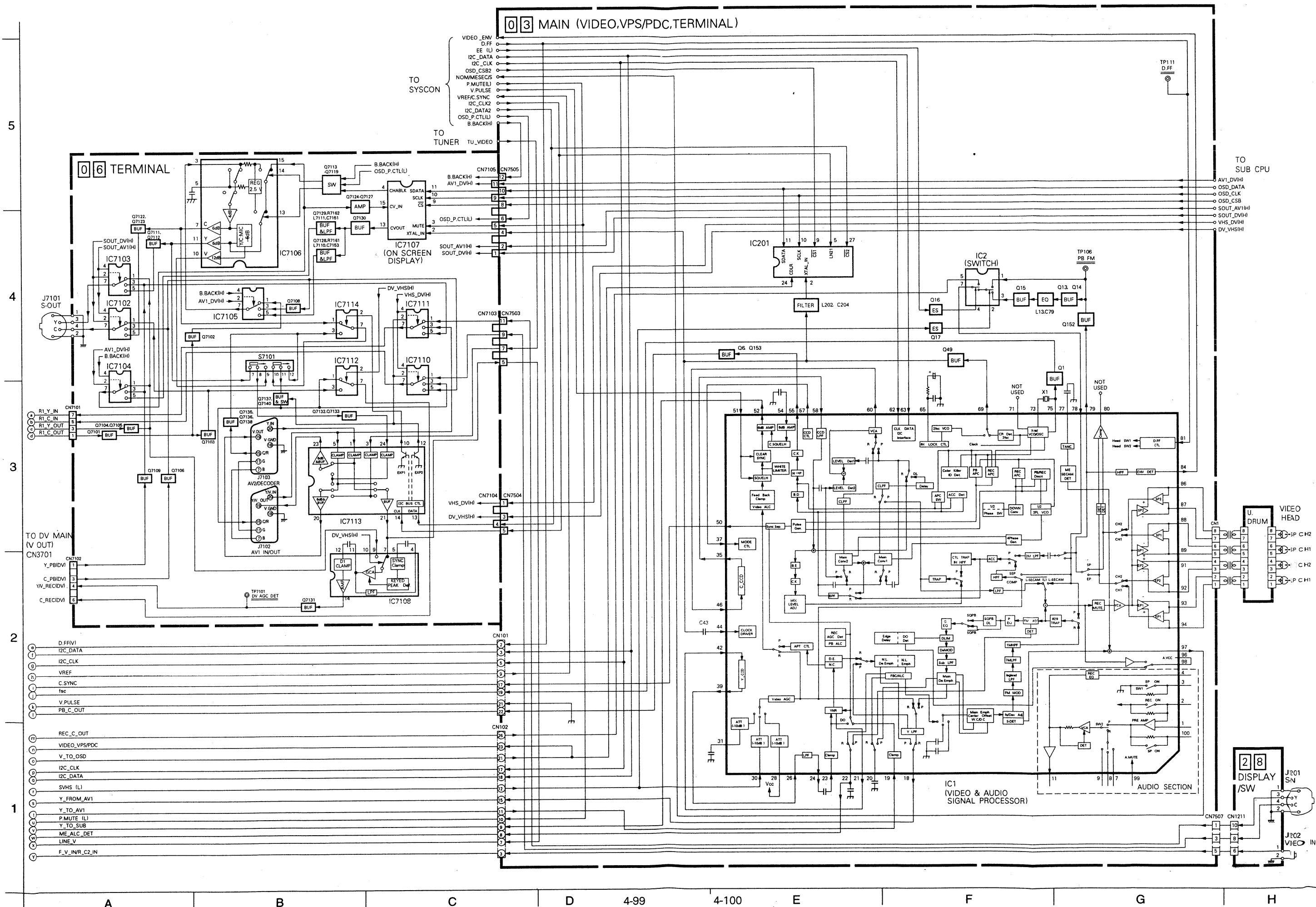
4.38 AUDIO BLOCK DIAGRAM(VHS)



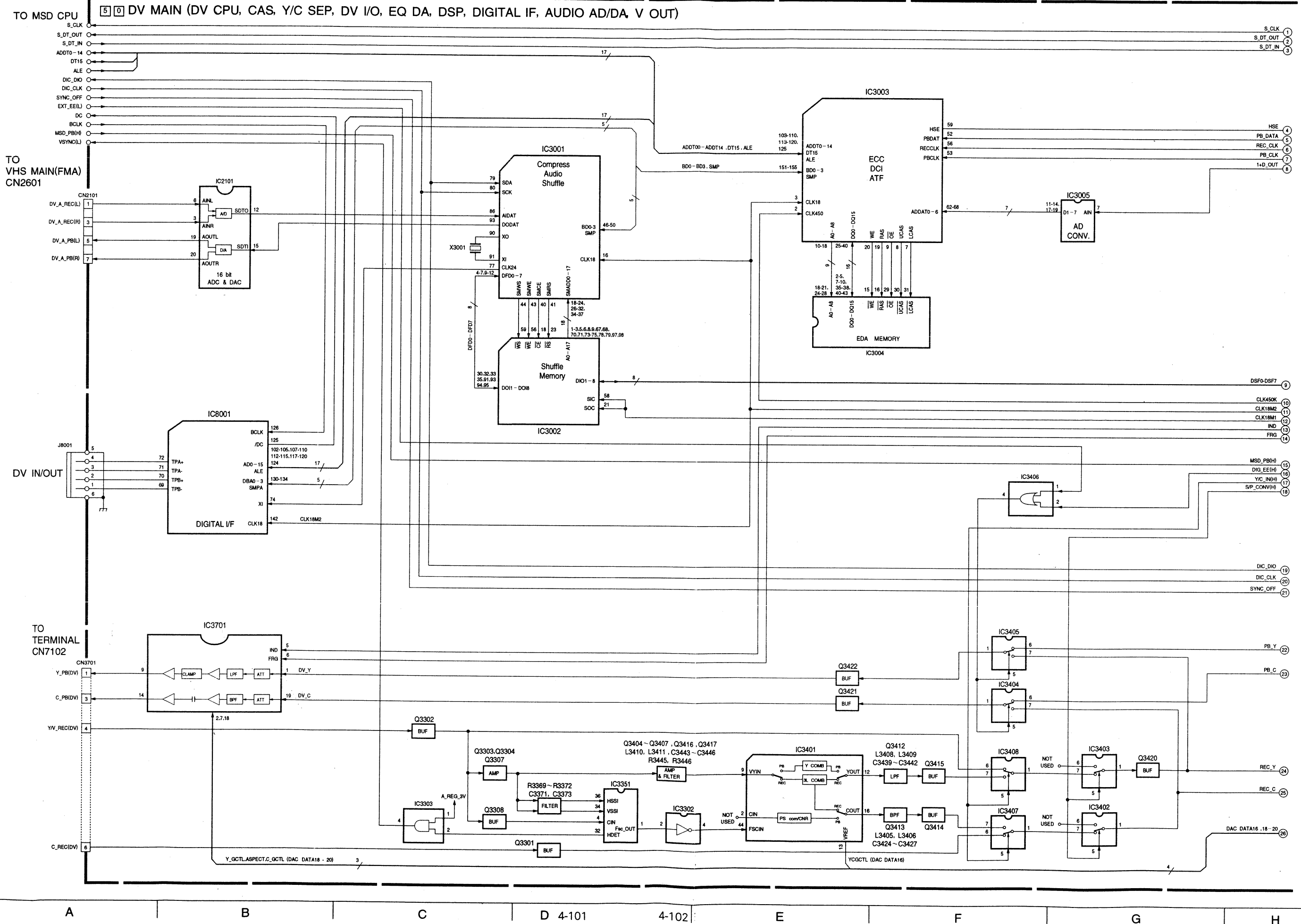
4.39 VIDEO BLOCK DIAGRAM(VHS)

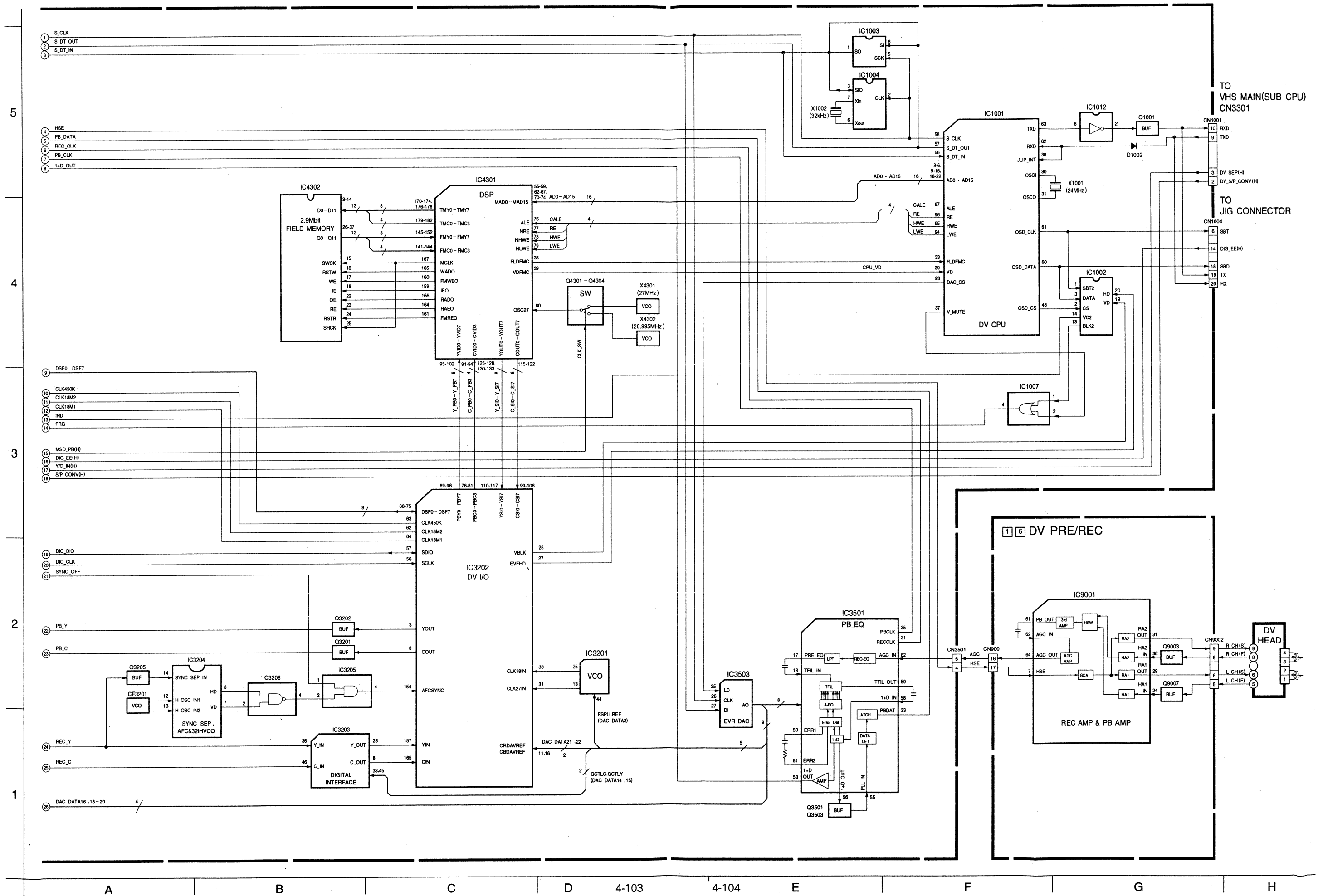
05 3D SVHS (VIDEO,3D/TBC)



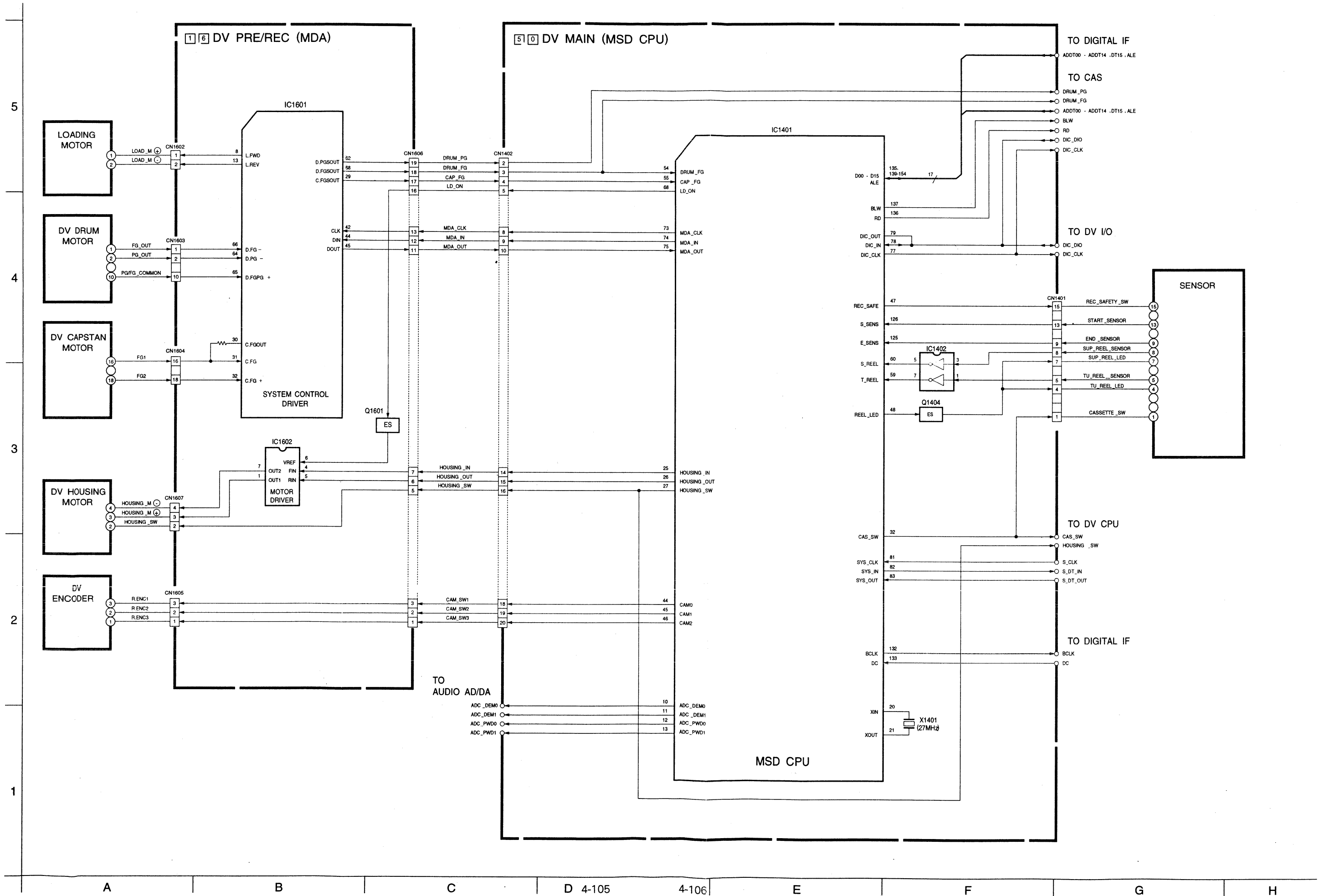


5 0 DV MAIN (DV CPU, CAS, Y/C SEP, DV I/O, EQ DA, DSP, DIGITAL IF, AUDIO AD/DA, V OUT)





4.41 SYSTEM CONTROL BLOCK DIAGRAM(DV)



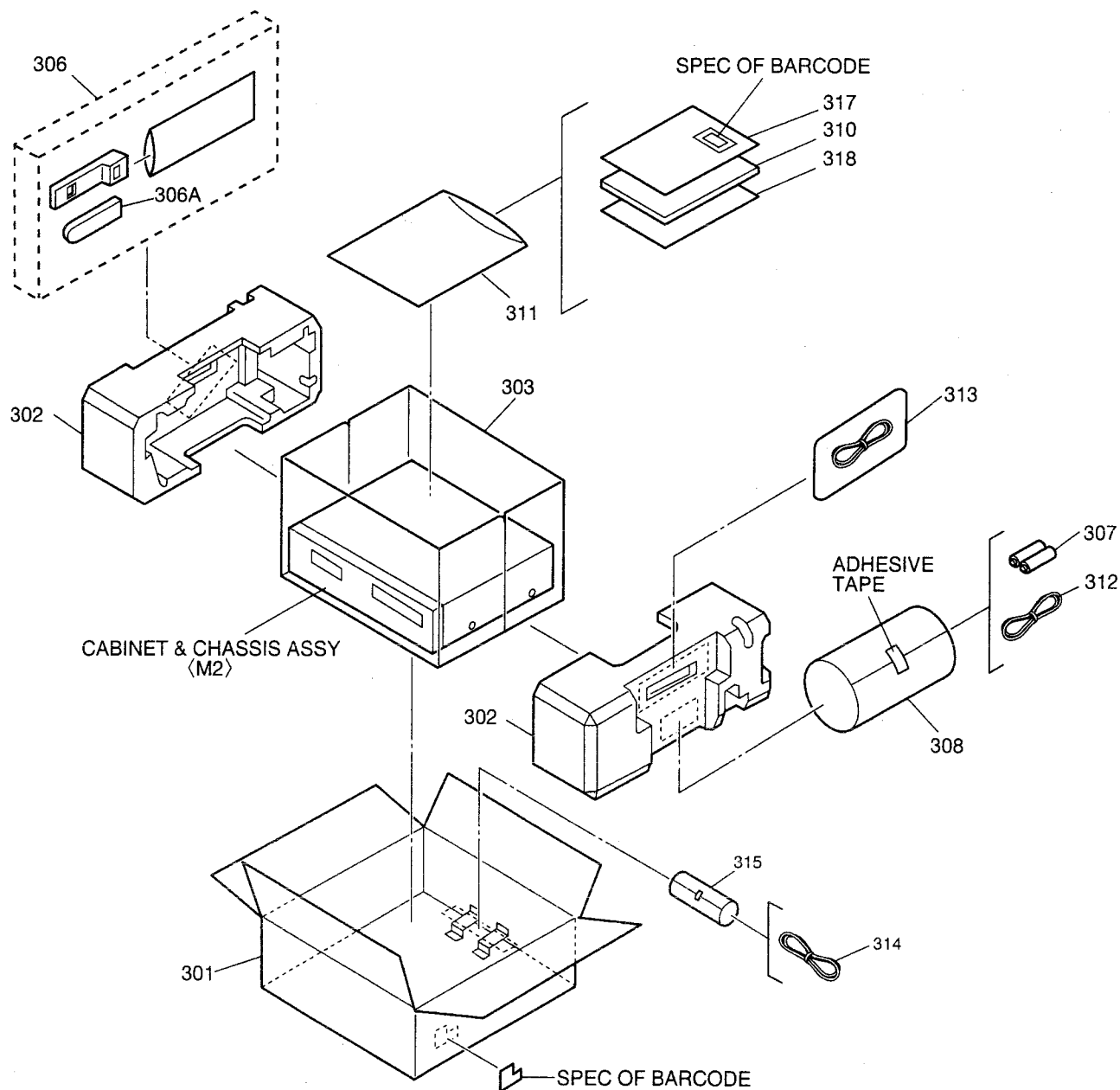
SECTION 5 PARTS LIST

SAFETY PRECAUTION

Parts identified by the $\triangle$ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



$\triangle$ REF No. PART No. PART NAME, DESCRIPTION

PACKING AND ACCESSORY ASSEMBLY <M1>

301	LP30645-002A	PACKING CASE
302	LP30397-001B	CUSHION ASSY
303	PQM30021-95	POLY BAG
306	LP20465-005B	REMOTE CONTROLLER
306A	LP40254-005A	COVER(BATTERY)
307	-	BATTERY,X2 ("AA"TYPE)

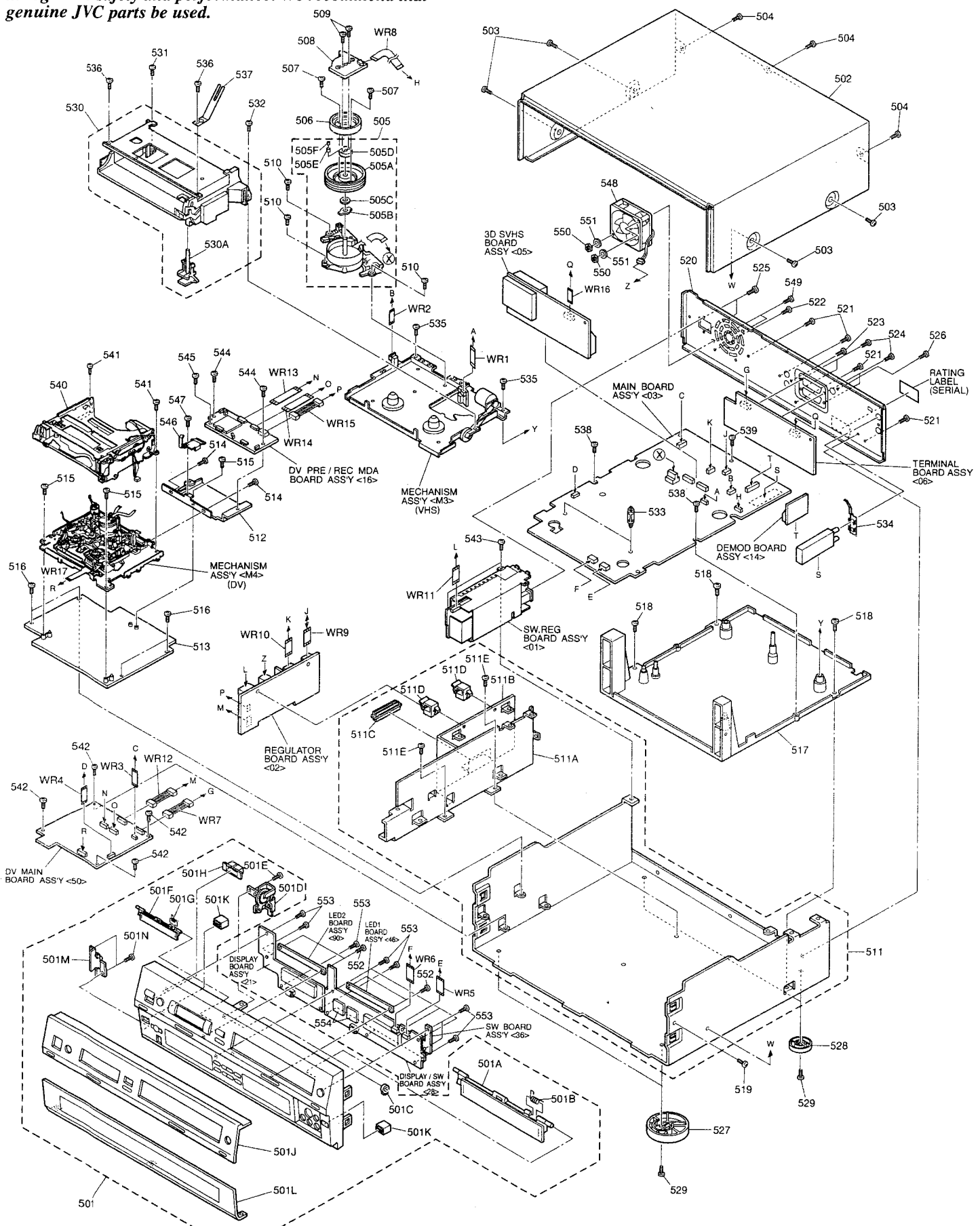
$\triangle$ REF No. PART No. PART NAME, DESCRIPTION

308	QPC02202215P	POLY BAG
$\triangle$ 310	LPT0338-001A	INST.BOOK(EN)
311	QPC02503515P	POLY BAG
312	PEAC0300-02	RF CABLE
313	QAM0020-001	PERI CABLE
$\triangle$ 314	QMP51H0-183	POWER CORD
315	QPA01003503	POLY BAG
317	BT-54008-2	GUARANTY CARD
318	LP20790-001A	QUESTIONNAIRE CARD

5.2 CABINET AND CHASSIS ASSEMBLY <M2>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



△ REF No. PART No. PART NAME, DESCRIPTION

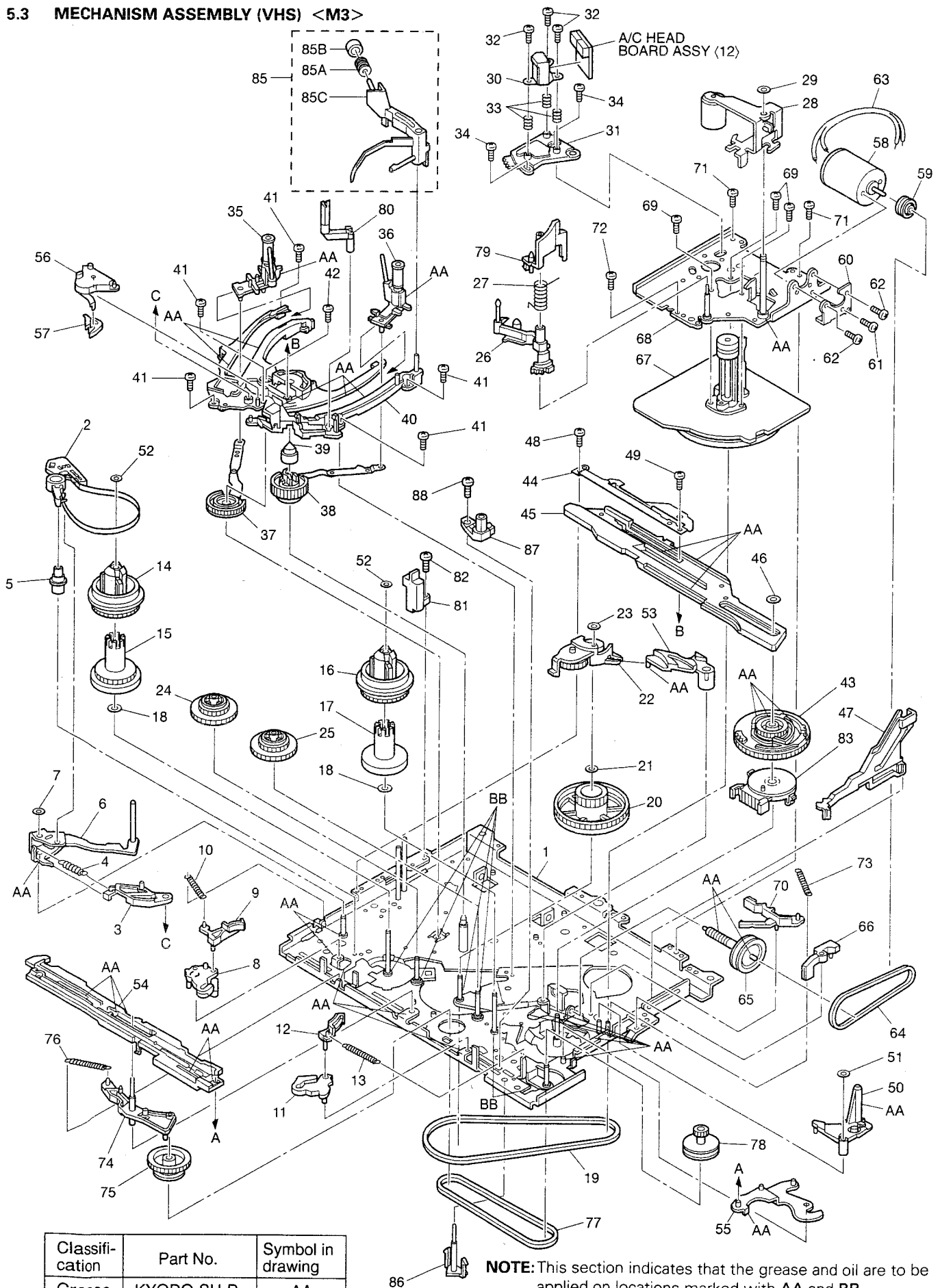
CABINET AND CHASSIS ASSEMBLY <M2>

△ 501	LP10144-003A	FRONT PANEL ASSY
501A	LP20249-009A	CASSETTE HOUSING DOOR
501B	PQ46448	TORSION SPRING
501C	LP40157-001A	GEAR(C.H.DOOR)
501D	LP40158-001B	DAMPER ASSY
501E	QYTDSP2606Z	SCREW,DAMPER
501F	LP30387-002A	CASSETTE DOOR,DV
501G	LP40360-001A	TORSION SPRING,DV
501H	LP40390-001A	PLATE(IR)
501J	LP10149-002A	COVER(FRONT)
501K	PEME0879	MAGNET ASSY,X2
501L	LP10146-003A	DOOR ASSY
501M	LP40361-001A	DAMPER(L)ASSY,DOOR
501N	QYTDSP2606Z	SCREW,X2 DAMPER(L)
△ 502	LP10128-002B	TOP COVER
503	QYTDST3006R	SCREW,X4 TOP COVER(SIDE)
504	QYTDST3006R	SCREW,X3 TOP COVER(REAR)
505	LP20053-007A	DRUM SUB ASSY
505A	LP20030-017A	UPPER DRUM ASSY
505B	PDM4439	CAP
505C	PDM4444-19-2	WASHER
505D	LP40572-001A	COLLAR ASSY
505E	LP40323-001A	CONTACT
505F	LP30004-014A	COMPRESSION SPRING
506	PDZ0179-1-4	ROTOR ASSY
507	QYSPSP3006Z	SCREW,X2
508	PDZ0180-1-2	STATOR ASSY
509	QYSPSPH2606Z	SCREW,X2
510	QYTDST2610Z	SCREW,X3 DRUM
△ 511	LP10156-002A	BOTTOM CHASSIS ASSY
511A	LP10130-002A	BRACKET(1)
511B	LP20355-001A	BRACKET(2)
511C	QZW0016-001	PC SUPPORT
511D	QZW0017-001	PC SUPPORT,X2
511E	QYTDST3006Z	SCREW,X7
512	LP30352-001B	BRACKET,DV MECHA
513	LP20359-001B	BASE(2),DV MECHA
514	QYTDST2004Z	SCREW,X2 DV MECHA
515	QYTDSP2606Z	SCREW,X3 DV MECHA
516	QYTDST3006Z	SCREW,X4 BASE(2)
517	LP20357-001C	BASE(1),VHS
518	QYTDST3006Z	SCREW,X3 BASE(1)
519	QYTDSP3010Z	SCREW,BOTTOM CHASSIS
△ 520	LP10129-002A	REAR COVER
521	QYTDST3006M	SCREW,X4 REAR COVER
522	QYTDST3006M	SCREW,REAR COVER
523	QYTDSP3008M	SCREW,JACK
524	QYTDSP3008M	SCREW,X4 PERI
525	QYTDSP3008M	SCREW,X2 IN/OUT LET
526	QYTDSP3008M	SCREW,S JACK
527	PQ46617A-1	FOOT ASSY,X2
528	PQ35504	FOOT(2),X2
529	QYTDST3006Z	SCREW,X4 FOOT
530	PUS29724E	CASSETTE HOUSING ASSY,VHS
530A	PQ46359-1-1	CASSETTE SWITCH PIN
531	SPST2606Z	SCREW,CASSETTE HOUSING ASSY
532	SDST2610Z	SCREW,CASSETTE HOUSING ASSY

△ REF No. PART No. PART NAME, DESCRIPTION

533	PEME0947-01-01	SPACER,X2 MECHA
534	PQ21623-2-5	EARTH PLATE(RF)
535	QYTDSP4012Z	SCREW,X2 MECHA(VHS)
536	QYTDSP3010Z	SCREW,X2 CASSETTE HOUSING(VHS)
537	PQ41556	EARTH PLATE,CASSETTE HOUSING(VHS)
538	QYTDSP3010Z	SCREW,X2 MAIN(VHS)
539	QYTDST3006Z	SCREW,MAIN(VHS)
540	LY30428-001E	CASSETTE HOUSING ASSY
541	QYTDSP2004Z	SCREW,X2 CASSETTE HOUSING,DV
542	QYTDST3006Z	SCREW,X4 MAIN,DV
543	QYTDST3006Z	SCREW,X2 SW.REG
544	QYTDST3006Z	SCREW,X2 PRE/REC MDA
545	QYTDST2005Z	SCREW,P/REC MDA
546	LP30553-001A	EARTH PLATE,DV
547	QYTDST2004Z	SCREW,EARTH PLATE
548	QAR0095-001	FAN MOTOR
549	QYTDSP4020M	SCREW,X2 FAN MOTOR
550	QYNN4000Z	NUT,X2 FAN MOTOR
551	QYWL4277A0Z	SPRING WASHER,X2 FAN MOTOR
552	QYTDSP2606Z	SCREW,X4 LED UNIT
553	QYTDSP2606Z	SCREW,X12 FRONT BOARD
554	PU59915-110	#500SPACER0.014
WR1	QUM037-13BFBF	PARA RIBON WIRE,A/C HEAD CN20
WR2	QUP012-32AHAA	PARA RIB S WIRE,FE HEAD CN200
WR3	QUQ210-0834CC	FFC WIRE,DV MAIN CN2601
WR4	QUQ210-1017CC	FFC WIRE,DV MAIN CN3301
WR5	QUQ112-1010CG	FFC WIRE,VHS FRONT CN702
WR6	QUQ112-1110CG	FFC WIRE,VHS FRONT CN1
WR7	QJN009-093221	E-SH C WIRE C-C,DV MAIN CN710
WR8	QUQ212-0524CG	FFC WIRE,DRUM MOTOR,CN3001
WR9	QUQ212-1328CG	FFC WIRE,REG CN7508
WR10	QUQ212-1228CG	FFC WIRE,REG CN7509
WR11	QUQ212-1913CG	FFC WIRE,REG CN5201
WR12	QJJ001-071002	SIN CR C-C WIRE,REG CN1002
WR13	QUQ105-2010AA	FFC WIRE,DV PRE/REC CN3501
WR14	QUQ105-2010AA	FFC WIRE,DV PRE/REC CN1402
WR15	QJJ001-051200	SIN CR C-C WIRE,DV PRE/REC CN5325
WR16	QUQ112-0710CG	FFC WIRE,TERMINAL CN1003
WR17	WJT0012-001B	E-CARD WIRE,DV FRONT CN1401

5.3 MECHANISM ASSEMBLY (VHS) <M3>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	COSMO-HV56	BB

NOTE: This section indicates that the grease and oil are to be applied on locations marked with AA and BB. During checking and servicing, check if grease has been applied on the locations marked with AA and oil on the locations marked with BB.

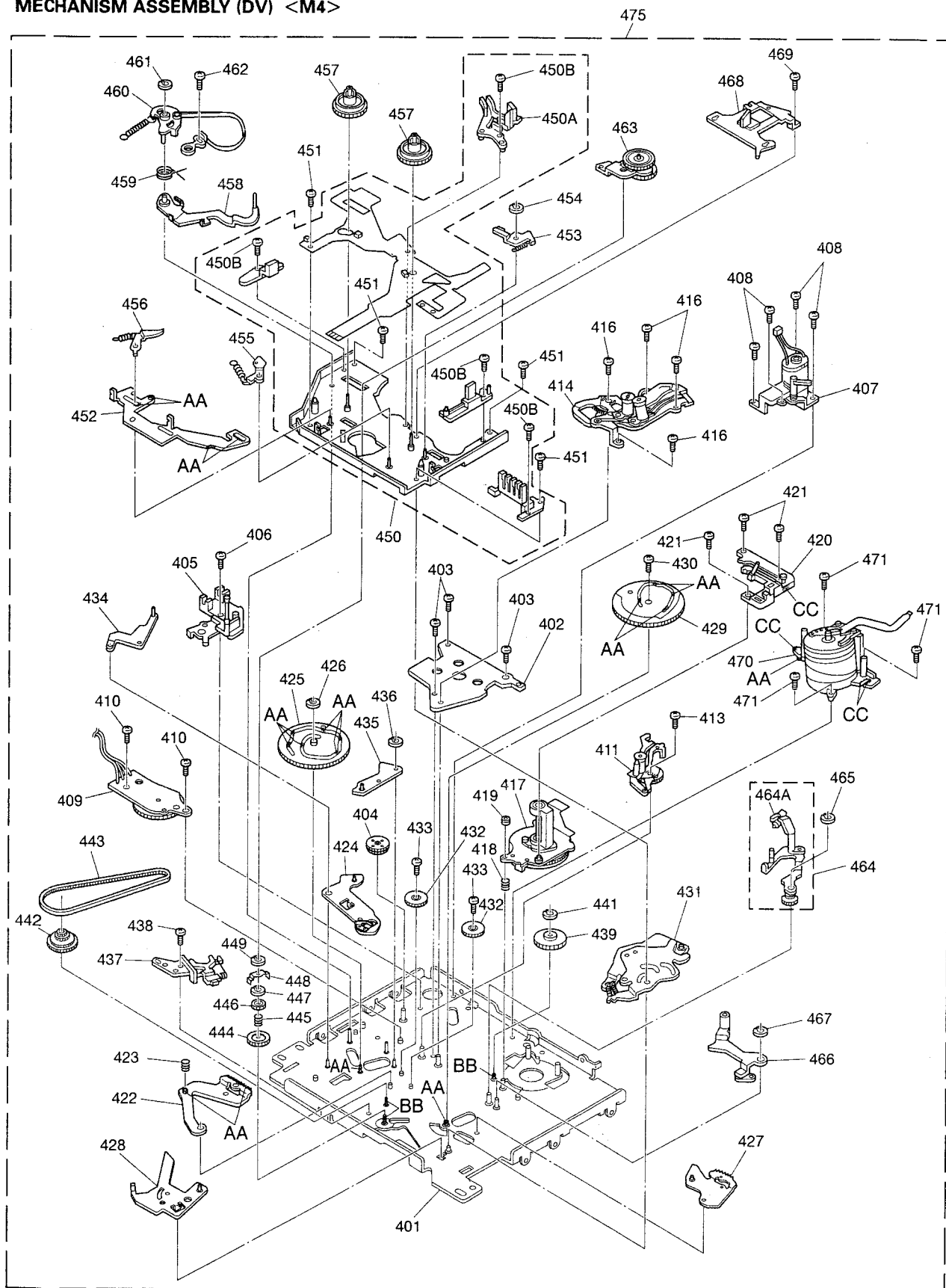
△ REF No. PART No. PART NAME, DESCRIPTION

MECHANISM ASSEMBLY(VHS) <M3>

1	PQ21680L-24	MAIN DECK ASSY
2	LP40006-001B	TENSION BAND ASSEMBLY
3	PQ35012-1-5	TENSION ARM LEVER
4	PQM30001-385109	TENSION SPRING
5	LP30103-001B	ADJUST PIN
6	PQ46303A-8	TENSION ARM ASSEMBLY
7	PQM30017-47	SLIT WASHER
8	PQ46305B-3	MAIN BRAKE ASSY (SUPPLY)
9	PQ46306A-6	SUB BRAKE ASSEMBLY(SUPPLY)
10	PQM30001-393	TENSION SPRING
11	PQ46308A-5	MAIN BRAKE ASSEMBLY(TAKE UP)
12	PQ46309A-4	SUB BRAKE ASSEMBLY(TAKE UP)
13	PQM30001-389102	TENSION SPRING
14	PQ46551B	REEL DISK ASSEMBLY(SUPPLY)
15	PQ35436	SLIT DISK(SUPPLY)
16	PQ46551B	REEL DISK ASSEMBLY(TAKE UP)
17	PQ35437	SLIT DISK(TAKE UP)
18	PQM30018-79	SPACER,X2
19	PQM30003-38	BELT,CAPSTEN
20	PQ46497B-2	PULLEY ASSY
21	PQM30018-69	SPACER
22	PQ46312C-15	IDLER ARM ASSY
23	PQM30017-34	SLIT WASHER
24	PQ46316C-6	CLUTCH UNIT(SUPPLY)
25	PQ46323A-1	CLUTCH UNIT(TAKE UP)
26	PQ46325C-9	GUIDE ARM ASSY
27	PQ46326-2	TORSION SPRING
28	PQ46327A-4	PINCH ROLLER ARM ASSY
29	PQM30017-24	SLIT WASHER,P,LEVER
30	PEHE0182	AUDIO CONTROL HEAD
31	PQ35206-1-3	HEAD BASE
32	PQ43687A	SPECIAL SCREW,X3 A/C HEAD
33	PQM30002-192	COMPRESSION SPRING,X3
34	SDSP2604Z	SCREW,X2 A/C HEAD
35	PQ46595B-5	POLE BASE ASSY(SUPPLY)
36	PQ46331C	POLE BASE ASSY(TAKE UP)
37	PQ46332B-3	LOADING ARM ASSEMBLY(SUPPLY)
38	PQ46337C	LOADING ARM ASSEMBLY(TAKE UP)
39	PQ46767-1-2	GUIDE CAP
40	PQ11657-1-9	GUIDE RAIL
41	SPST2608Z	SCREW,X5 GUIDE RAIL
42	SDST2612Z	SCREW,GUIDE RAIL
43	LP20003-001A	CONTROL CAM
44	PQ35138-1-2	CONTROL BRACKET
45	LP10004-001C	CONTROL PLATE
46	PQM30017-8	SLIT WASHER
47	PQ21685-2-10	PINCH PLATE
48	SPST2606Z	SCREW,CONTROL COM
49	SPSF2608M	SCREW,CONTROL BRACKET
50	PQ46342D-10	LEVER ASSY
51	PQM30017-8	SLIT WASHER
52	PQM30017-47	SLIT WASHER,X2
53	PQ35026-1-7	IDLER LEVER
54	PQ11659-1-14	SLIDE PLATE
55	LP40014-001A	CHANGE LEVER ASSEMBLY
56	PQ21686-1-3	TAKE UP LEVER
57	PQ46345-1-2	TAKE UP HEAD
58	PU60628-3-2	LOADING MOTOR

# △ REF No.	PART No.	PART NAME, DESCRIPTION
59	PQ43546-1-2	MOTOR PULLEY
60	PQ46568-1-2	MOTOR GUIDE
61	SDSP2604Z	SCREW,SUB DECK ASSY
62	SPSP3005Z	SCREW,X2 MOTOR GUIDE
63	PW30101-80AJ632	WIRE
64	LP30005-002A	BELT,LOADING MOTOR
65	PQ46395B	WORM GEAR ASSY
66	PQ21699-1-2	WORM BEARING
67	PU61487-2-5	CAPSTAN MOTOR
68	PQ46347G	SUB DECK ASSY
69	SPSG2608Z	SCREW,X3 CAPSTAN MOTOR
70	PQ46356C-4	CAPSTAN BRAKE ASSEMBLY
71	SPST2606Z	SCREW,X2 SUB DECK/DEW SENSOR
72	SDSP2604Z	SCREW,MOTOR GUIDE
73	LP30003-005A	TENSION SPRING,CAPSTEN BRAKE
74	PQ46353B	CHANGE ARM ASSEMBLY
75	PQ46354	CHANGE GEAR
76	PQM30001-386	TENSION SPRING
77	PQM30003-40	BELT,CHANGE GEAR
78	LP40008-001B	CASSETTE GEAR
79	PQ35030-1-5	LID GUIDE
80	LP20032-001A	LED PRISM
81	PEHE0237	FULL ERASE HEAD
82	SDST2610Z	SCREW,FE HEAD
83	PU61432-1-2	ROTARY ENCODER
85	PQ46436A-1	CLEANER ASSY
85A	PQ46418-1-2	CLEANER ROLLER
85B	PQ46419-1-2	CLEANER
85C	PQ35159-1-1	CLEANER ARM
86	PQ46473-1-1	S-SW PIN
87	PQ46474-1-2	S-SW HOLDER
88	SPST2606Z	SCREW

5.4 MECHANISM ASSEMBLY (DV) <M4>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	YTU94027	BB
Grease	RX-410R	CC

NOTES:

- This section indicates that the grease and oil are to be applied on locations marked with **AA**, **BB** and **CC**. During checking and servicing, check if grease has been applied on the locations marked with **AA**, **CC** and oil on the locations marked with **BB**.
- Apply also grease and oil on some locations in the main cam gear and the cam groove at the rear side of the sub cam gear.

▲ REF No. PART No. PART NAME, DESCRIPTION

MECHANISM ASSEMBLY(DV) <M4>

401	LY10062-001B	MAIN DECK ASSY
402	LY30358-001A	DRUM BASE DECK
403	YQ43893	MINI SCREW,X3
404	LY30343-001A	WORM WHEEL 2
405	LY40237-001C	ENT.GUIDE BASE ASSY
406	YQ43893	MINI SCREW
407	LY30340-001B	MOTOR BRACKET ASSY
408	YQ43893	MINI SCREW,X4
409	LY41190-001B	ROTARY ENCODER ASSY
410	YQ43893	MINI SCREW,X2
411	YQ31873B-30	GUIDE RAIL ASSY(SUPPLY)
413	YQ43893	MINI SCREW
414	LY20097-001B	GUIDE RAIL ASSY(TAKE UP)
416	YQ43893	MINI SCREW,X4
417	QAR0012-002	CAPSTAN MOTOR
418	LY30002-003A	COMPRESSION SPRING
419	LY41390-001A	ADJUST NUT
420	LY30345-001A	MIDDLE CATCHER ASSY
421	YQ43893	MINI SCREW,X3
422	LY40223-001A	ARM GEAR 1 ASSY
423	LY40224-001A	COLLAR
424	LY40235-002B	CENTERRING ARM ASSY
425	LY10060-002A	MAIN CAM
426	YQ44246	SLIT WASHER
427	LY40279-001A	ARM GEAR 2 ASSY
428	LY40228-001A	CLUTCH LOCK LEVER ASSY
429	LY20102-001A	SUB CAM
430	YQ43893	MINI SCREW
431	LY30347-001A	CHARGE ARM ASSY
432	YQ44560-1-2	CONNECT GEAR 2
433	YQ43893	MINI SCREW
434	LY40236-001A	TENSION CONTROL ARM ASSY
435	LY40233-001A	BRAKE CONTROL ARM ASSY
436	YQ44246	SLIT WASHER
437	LY40242-001C	BASE PLATE ASSY
438	YQ43893	MINI SCREW
439	YQ43931A	REEL DRIVE PULLEY ASSY
441	YQ44246	SLIT WASHER
442	LY40239-001B	CENTER GEAR ASSY
443	LY40241-001A	TIMING BELT
444	LY40246-001A	CLUTCH LOCK GEAR (1)
445	LY30002-009A	COMPRESSION SPRING
446	LY40247-001A	CLUTCH LOCK GEAR (2)
447	YQ43933-2	WASHER
448	LY40248-001A	PUSH PLATE
449	YQ44246	SLIT WASHER
450	LYH30012-001A	SUB DECK ASSY(G)
450A	LY20108-001B	PRISM
450B	YQ43893	MINI SCREW
451	YQ43893	MINI SCREW,X4
452	LY20109-001B	CONTROL PLATE
453	LY40257-001A	SUB BRAKE ASSY
454	YQ44246	SLIT WASHER
455	LY40259-001A	MAIN BRAKE ASSY(TAKE UP)
456	LY40260-001B	MAIN BRAKE ASSY(SUPPLY)
457	LY40255-001A	REEL DISK ASSY
458	LY41245-001B	TENSION ARM SUB ASSY
459	LY41243-001A	TORSION SPRING

▲ REF No. PART No. PART NAME, DESCRIPTION

460	LY41246-001C	BAND ARM PLATE SUB ASSY
461	YQ44246-3	SLIT WASHER
462	YQ43893-7	MINI SCREW
463	LY30370-001D	SWING ARM ASSY
464	LY30380-001D	EXIT GUIDE ARM ASSY
464A	LY41250-001A	CLEANER ARM ASSY
465	YQ44246	SLIT WASHER
466	LY30374-001B	PINCH ROLLER ARM ASSY
467	YQ44246	SLIT WASHER
468	LY40280-001B	REEL COVER ASSY
469	YQ43893	MINI SCREW
470	YDV2089B	DRUM ASSY
471	YQ43893	MINI SCREW,X3
475	YMA0024A	MECHA ASSY(C)

5.5 ELECTRICAL PARTS LIST

△ REF No. PART No. PART NAME, DESCRIPTION

SW REGULATOR BOARD ASSEMBLY <01>

PW1	LPA10082-01C1	SW.REGULATOR BOARD ASSY
IC5101	STR-F6552	IC
IC5301	L5431	IC
Q5301	2SD1819A/RS/-X	TRANSISTOR
	or 2SC4081/RS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q5302	DTA114EU	TRANSISTOR
	or PDA114EU	TRANSISTOR
	or RN2302	TRANSISTOR
	or UN5111	TRANSISTOR
D5001	RBV-406	BRIDGE DIODE
D5101	AU01	FR DIODE
	or ERA18-04-T2	FR DIODE
	or PG104RS	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS4	FR DIODE
D5102	AU01	FR DIODE
	or ERA18-04-T2	FR DIODE
	or PG104RS	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS4	FR DIODE
D5103	AU01Z	FR DIODE
	or ERA18-02-T2	FR DIODE
	or PG104RS	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS2	FR DIODE
D5105	AK04	DIODE
D5106	1SS133	DIODE
D5201	AK04	DIODE
	or 1S4	SB DIODE
	or 11EQS04	SB DIODE
D5202	FML-12S	FR DIODE
	or MA644	FR DIODE
	or YG901C2	FR DIODE
	or FCF06A20	FR DIODE
D5203	FMB-24	BARRIER DIODE
	or FSQ05A04B	SB DIODE
	or MA7D49	SB DIODE
	or YG801C04	SB DIODE
D5204	1SR153-400-T2	FR DIODE
	or PG104RS	FR DIODE
	or 10ELS2	FR DIODE
	or ERA18-02-T2	FR DIODE
D5206	FMB-24	BARRIER DIODE
	or FSQ05A04B	SB DIODE
	or MA7D49	SB DIODE
	or YG801C04	SB DIODE
D5207	FMB-24	BARRIER DIODE
	or FSQ05A04B	SB DIODE
	or MA7D49	SB DIODE
	or YG801C04	SB DIODE
D5210	AU01Z	FR DIODE
	or ERA18-02-T2	FR DIODE
	or PG104RS	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS2	FR DIODE
D5211	AU01Z	FR DIODE

	or ERA18-02-T2	FR DIODE
	or PG104RS	FR DIODE
	or 1SR153-400-T2	FR DIODE
	or 10ELS2	FR DIODE
D5301	MTZJ15A	ZENER DIODE
	or RD15ES/B1/-T2	ZENER DIODE
D5303	MTZJ12C	ZENER DIODE
	or RD12ES/B3/-T2	ZENER DIODE
D5304	1SS133	DIODE
D5305	MTZJ27C	ZENER DIODE
	or RD27ES/B3/-T2	ZENER DIODE
D5306	MTZJ2.7B	ZENER DIODE
	or RD2.7ES/B2/-T2	ZENER DIODE
D5307	1SS133	DIODE
D5308	1SS133	DIODE
D5309	1SS133	DIODE
D5310	1SS133	DIODE
D5311	1SS133	DIODE
D5312	1SS133	DIODE
R5101	QRG02GJ-683	OMF RESISTOR 68kΩ,2W
R5102	NRSA02J-681X	MG RESISTOR 680Ω,1/10W
R5103	QRE141J-100Y	RESISTOR 10Ω,1/4W
R5104	QRG02GJ-683	OMF RESISTOR 68kΩ,2W
R5106	QRT01DJ-R47X	MF RESISTOR 0.47Ω,1W
R5108	NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R5302	NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R5303	QRA14CF-1182Y	CMF RESISTOR 11.8kΩ,1/4W
R5304	QRA14CF-3011Y	CMF RESISTOR 3.01kΩ,1/4W
R5305	NRSA02J-223X	MG RESISTOR 22kΩ,1/10W
△ R5306	QRZ9005-470X	FUSI RESISTOR 47Ω,1/4W
R5307	NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R5308	NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5309	NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W
R5310	QRL02DJ-821X	OMF RESISTOR 820Ω,2W
R5311	NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R5313	NRSA02J-561X	MG RESISTOR 560Ω,1/10W
R5314	NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R5316	NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5317	NRSA02J-333X	MG RESISTOR 33kΩ,1/10W
△ C5001	QFZ9073-683	F CAPACITOR 0.068μF,250V
△ C5002	QFZ9051-333	F CAPACITOR 0.033μF,250V
△ C5005	QCZ9071-222	CAPACITOR 0.0022μF,250V
C5006	QEZ0455-157	E CAPACITOR 150μF,400V
C5101	QCZ0212-472	CAPACITOR 0.0047μF,1kV
C5103	QEMU1EM-396	E CAPACITOR 39μF,25V
C5104	QCZ0136-151Z	CAPACITOR 150pF,1KV
C5105	QFLA1HJ-471Z	F CAPACITOR 470pF,50V
C5201	QEMU0JM-227	E CAPACITOR 220μF,6.3V
C5202	QEMT1CM-827	E CAPACITOR 820μF,16V
C5203	QETN1CM-227	E CAPACITOR 220μF,16V
C5204	QEMT1AM-278	E CAPACITOR 2700μF,10V
C5205	QETN1AM-227	E CAPACITOR 220μF,10V
C5206	QEMU1EM-187	E CAPACITOR 180μF,25V
C5207	QETN2AM-475	E CAPACITOR 4.7μF,100V
C5208	QEMU1HM-186	E CAPACITOR 18μF,50V
C5210	QEMT1AM-687	E CAPACITOR 680μF,10V
C5211	QETN1AM-227	E CAPACITOR 220μF,10V
C5212	QEMT1AM-128	E CAPACITOR 1200μF,10V
C5213	QETN1AM-227	E CAPACITOR 220μF,10V
C5301	QFLC1HJ-103Z	F CAPACITOR 0.01μF,50V
C5302	QFLC1HJ-473Z	F CAPACITOR 0.047μF,50V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
		C5303	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V
		C5304	QETN1AM-476	E CAPACITOR	47μF,10V
		C5305	QFLC1HJ-103Z	F CAPACITOR	0.01μF,50V
		L5201	PELN1184	COIL	33μH
		L5202	PU60944-330K	COIL	33μH
		L5203	PELN1184	COIL	33μH
		L5204	PELN1184	COIL	33μH
		K5101	QQR0678-001Z	FERRITE BEAD	
△		PC5101	PC123F2	PH COUPLER	
△		T5001	QQS0049-001	SW TRANSFORMER	
		HS1	PEME0889-01-01	HEAT SINK,IC5101	
		HS2	PQ46006-1-1	HEAT SINK(2)	
		SD1	PQ21503-3	SHIELD CASE(REG)	
		SD2	PQ34638-1-4	SHIELD COVER(REG)	
		OT1	PU60010-2	SPACER	
△		OT2	LP40600-001A	SHEET(SW.REG)	
		OT3	QYTDST3008Z	SCREW,X6	
		OT4	QYTDST3010Z	SCREW,IC5101	
		FC5001	QNG0006-001Z	FUSE CLIP,F5001	
		FC5002	QNG0006-001Z	FUSE CLIP,F5001	
△		LF5001	PELN1204-01-01	LINE FILTER	
△		LF5002	QQR1031-001	LINE FILTER	
△		CN5001	PEMC1067	AC INLET	
		CN5201	QGF1208F1-19	FPC CONNECTOR,(1-19)REG	
△		CP5305	ICP-N25	CIRCUIT PROTECTOR	
△		F5001	QMF51E2-2R0J1	FUSE	T2.0A,AC250V

REGULATOR BOARD ASSEMBLY <02>

PW1	LPA10082-01C2	REGULATOR BOARD ASSY
IC5321	PQ15RW11	IC
Q5321	2SD2528/QP/	TRANSISTOR
Q5322	2SD1819A/RS/-X	TRANSISTOR
	or 2SC4081/RS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q5323	2SA933AS/RS/-T	TRANSISTOR
	or 2SA1267/YG/-T	TRANSISTOR
Q5324	DTC114EU	TRANSISTOR
	or PDTC114EU	TRANSISTOR
	or RN1302	TRANSISTOR
	or UN5211	TRANSISTOR
Q5325	2SD2375/QP/	TRANSISTOR
Q5326	2SD2375/QP/	TRANSISTOR
Q5327	2SD1819A/RS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SC4081/RS/-X	TRANSISTOR
Q5328	2SD2375/QP/	TRANSISTOR
Q5329	DTA114EU	TRANSISTOR
	or PDA114EU	TRANSISTOR
	or RN2302	TRANSISTOR
	or UN5111	TRANSISTOR
Q5330	2SD2144S/UV/-T	TRANSISTOR
Q5331	2SB1068/KU/-T	TRANSISTOR
Q5332	DTC114EU	TRANSISTOR
	or PDTC114EU	TRANSISTOR
	or RN1302	TRANSISTOR

		or UN5211	TRANSISTOR	
Q5333	2SD1450/ST/-T	TRANSISTOR		
	or 2SD1302/ST/-T	TRANSISTOR		
Q5334	DTA114EU	TRANSISTOR		
	or PDA114EU	TRANSISTOR		
	or RN2302	TRANSISTOR		
	or UN5111	TRANSISTOR		
Q5335	2SB1256	TRANSISTOR		
Q5336	DTC114TU	TRANSISTOR		
	or UN5215	TRANSISTOR		
Q5337	2SB1256	TRANSISTOR		
Q5338	2SA1576A/RS/-X	TRANSISTOR		
Q5339	2SD2144S/UV/-T	TRANSISTOR		
Q5340	DTA114EU	TRANSISTOR		
	or PDA114EU	TRANSISTOR		
	or UN5111	TRANSISTOR		
	or RN2302	TRANSISTOR		
Q5341	DTC114EU	TRANSISTOR		
	or RN1302	TRANSISTOR		
	or UN5211	TRANSISTOR		
	or PDTC114EU	TRANSISTOR		
D5321	1SS133	DIODE		
D5322	1SS133	DIODE		
D5323	11ES2	DIODE		
	or ERA15-02-T2	DIODE		
D5324	11ES2	DIODE		
	or ERA15-02-T2	DIODE		
D5325	RD5.1JS/B2/-T2	ZENER DIODE		
	or MA4051N/M/-T2	ZENER DIODE		
D5326	1SS133	DIODE		
D5327	RD5.1JS/B2/-T2	ZENER DIODE		
	or MA4051N/M/-T2	ZENER DIODE		
D5328	1SS133	DIODE		
D5329	1SS133	DIODE		
D5330	1SS133	DIODE		
D5331	1SS133	DIODE		
D5332	1SS133	DIODE		
D5333	1SS133	DIODE		
D5334	11ES2	DIODE		
	or ERA15-02-T2	DIODE		
D5335	1SS133	DIODE		
D5336	MTZJ12A	ZENER DIODE		
	or RD12ES/B1/-T2	ZENER DIODE		
R5322	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5323	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5324	NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	
R5325	NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	
R5326	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5327	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5328	NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	
R5329	NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	
R5330	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5331	NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W	
R5332	NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	
R5333	NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	
R5335	NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	
R5336	NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W	
R5337	NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	
R5338	NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	
R5339	NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	
R5340	QRL01DJ-820X	OMF RESISTOR	82Ω, 1W	

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R5341		NRSA02J-511X	MG RESISTOR 510Ω,1/10W
R5342		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R5343		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R5344		NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R5345		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R5346		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R5347		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R5348		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R5349		NRSA02J-273X	MG RESISTOR 27kΩ,1/10W
R5350		NRSA02J-273X	MG RESISTOR 27kΩ,1/10W
R5351		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R5352		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
C5321		QETN1AM-107	E CAPACITOR 100μF,10V
C5322		QETN1HM-106	E CAPACITOR 10μF,50V
C5323		QETN1CM-107	E CAPACITOR 100μF,16V
C5324		QFLC1HJ-102Z	F CAPACITOR 0.001μF,50V
C5325		QFLC1HJ-102Z	F CAPACITOR 0.001μF,50V
C5326		QETN1AM-107	E CAPACITOR 100μF,10V
C5327		QETN1HM-106	E CAPACITOR 10μF,50V
C5328		QETN1AM-107	E CAPACITOR 100μF,10V
C5329		QFLC1HJ-103Z	F CAPACITOR 0.01μF,50V
C5330		QETN1AM-107	E CAPACITOR 100μF,10V
C5331		QETN1AM-107	E CAPACITOR 100μF,10V
C5332		QETN1CM-226	E CAPACITOR 22μF,16V
C5333		QETN1AM-107	E CAPACITOR 100μF,10V
C5334		QETN1CM-227	E CAPACITOR 220μF,16V
C5335		QETN1CM-107	E CAPACITOR 100μF,16V
L5321		QQL01BK-101Z	COIL 100μH
HS1		PQ46583-1-1	HEAT SINK
OT1		QYTDST3008Z	SCREW,X3
CN5301		QGF1208F1-19	FPC CONNECTOR,(1-19)SW.REG
CN5321		QGF1208F1-12	FPC CONNECTOR,(1-12)MAIN
CN5322		QGF1208F1-13	FPC CONNECTOR,(1-13)MAIN
CN5323		QGA2001C1-07	CONNECTOR,(1-7)DV MAIN
CN5325		QGA2001C1-05	CONNECTOR,(1-5)DV PRE/REC
CN5326		QGA2001F1-02	CONNECTOR,(1-2)FAN MOTOR
△ CP5322		ICP-N25	CIRCUIT PROTECTOR
△ CP5324		ICP-N25	CIRCUIT PROTECTOR
△ CP5325		ICP-N25	CIRCUIT PROTECTOR

MAIN BOARD ASSEMBLY <03>

PW1	LPA10074-02C	MAIN BOARD ASSY
IC1	JCP8017-MSA	IC
IC2	MM1113XF	IC
IC201	LC74775-9750	IC
IC2201	AN3650NFBP	IC
	or AN3651FBP	IC
IC2601	BU4052BCF	IC
IC2602	BA15218F-XE	IC
IC2604	BA15218F-XE	IC
IC2605	BA3129F	IC
IC2606	BA3129F	IC
IC2607	BU4053BCF	IC
IC2608	BA3129F	IC
IC3001	HD6432194A21F	IC

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
IC3002		S-80728AN-DR-X	IC
		or S-80828ANUP-W	IC
IC3003		X24C08P	IC
		or AT24C08-10PC	IC
		or 24LC08B/P	IC
IC3004		TA7291S	IC
IC3301		UPD78053GCA66	IC
		or UPD78P058GCA66	IC
IC3302		TC74HC4053AF	IC
IC6080		BA15218F-XE	IC
IC7501		PQ05RF21	IC
Q1		2SB1218A/QR/-X	TRANSISTOR
		or 2SA1576A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
Q6		2SB1218A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
		or 2SA1576A/QR/-X	TRANSISTOR
Q13		2SD1819A/QRS/-X	TRANSISTOR
		or 2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q14		2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SC4081/QRS/-X	TRANSISTOR
Q15		2SB1218A/QR/-X	TRANSISTOR
		or 2SA1576A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
Q16		UN511E	TRANSISTOR
		or RN2309	TRANSISTOR
		or PDA144WU	TRANSISTOR
		or DTA144WU	TRANSISTOR
Q17		UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
		or DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
Q18		UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or DTC144WU	TRANSISTOR
Q47		2SK433/D/-W	JUNCTION FET
Q48		2SK433/D/-W	JUNCTION FET
Q49		2SC3936/BC/-X	TRANSISTOR
Q55		UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
		or DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
Q152		2SB1218A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
		or 2SA1576A/QRS/-X	TRANSISTOR
Q153		2SD1819A/QRS/-X	TRANSISTOR
		or 2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q401		2SA1576A/QR/-X	TRANSISTOR
Q402		UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
		or DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
Q403		UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
		or DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
Q404		2SA1576A/QR/-X	TRANSISTOR

▲ REF No. PART No. PART NAME, DESCRIPTION

Q405	2SA1576A/QR/-X	TRANSISTOR
Q2001	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q2002	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q2003	DTA144WU	TRANSISTOR
	or PDTA144WU	TRANSISTOR
	or RN2309	TRANSISTOR
	or UN511E	TRANSISTOR
Q2051	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q2052	2SA1576A/QR/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q2053	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q2054	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q2055	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q2061	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q2062	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q2063	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q2151	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q2201	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q2202	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q2203	DTA144WU	TRANSISTOR
	or PDTA144WU	TRANSISTOR
	or RN2309	TRANSISTOR
	or UN511E	TRANSISTOR
Q2204	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q2253	DTC114EU	TRANSISTOR
	or RN1302	TRANSISTOR
	or UN5211	TRANSISTOR
	or PDTC114EU	TRANSISTOR
Q2255	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR

▲ REF No. PART No. PART NAME, DESCRIPTION

	or UN521E	TRANSISTOR
	or RN1309	TRANSISTOR
Q2256	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q2258	DTA144WU	TRANSISTOR
	or RN2309	TRANSISTOR
	or UN511E	TRANSISTOR
	or PDTA144WU	TRANSISTOR
Q2601	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q2602	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q2603	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
	or PDTC144WU	TRANSISTOR
Q2604	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or UN521E	TRANSISTOR
	or RN1309	TRANSISTOR
Q2605	DTC144WU	TRANSISTOR
	or PDTC144WU	TRANSISTOR
	or UN521E	TRANSISTOR
	or RN1309	TRANSISTOR
Q3001	2SD1819A/QRS/-X	TRANSISTOR
	or 2SG4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q3002	LP40038-001A	TAPE SENSOR
Q3003	LP40038-001A	TAPE SENSOR
Q3004	2SD1819A/QRS/-X	TRANSISTOR
	or 2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q3005	2SD1819A/QRS/-X	TRANSISTOR
	or 2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q3008	UN521E	TRANSISTOR
	or DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
Q3301	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q3302	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q3303	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q3304	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q3305	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q3306	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q4001	UN5211	TRANSISTOR

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
		or RN1302	TRANSISTOR	
		or DTC114EU	TRANSISTOR	
	Q6030	2SB1218A/RS/-X	TRANSISTOR	
	Q6031	UN5211	TRANSISTOR	
		or RN1302	TRANSISTOR	
		or DTC114EU	TRANSISTOR	
	Q6032	UN5211	TRANSISTOR	
		or DTC114EU	TRANSISTOR	
		or RN1302	TRANSISTOR	
	D202	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	D203	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	D2001	1SS133	DIODE	
	D2201	11ES2	DIODE	
	D3001	SIR-381SB3FM	LE DIODE	
		or SIR-381SB3FX1M	LE DIODE	
	D3002	1SS133	DIODE	
	D3003	RD33ES/B2/-T2	ZENER DIODE	
		or MTZJ33C	ZENER DIODE	
	D3004	11ES2	DIODE	
	D3005	11ES2	DIODE	
	D3007	1SS133	DIODE	
	D3008	1SS355	DIODE	
	D3301	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	D4001	1SS355	DIODE	
	D4002	1SS355	DIODE	
	D6002	HZ30-2L-T2	ZENER DIODE	
		or HZ30-2LTD	Z DIODE (M)	
	D7502	1SS355	DIODE	
	R1	NRSA02J-331X	MG RESISTOR	330Ω,1/10W
	R2	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
	R3	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R4	NRSA02J-822X	MG RESISTOR	8.2kΩ,1/10W
	R5	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R6	NRSA02J-681X	MG RESISTOR	680Ω,1/10W
	R7	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R10	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R11	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R13	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W
	R15	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R16	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R24	NRVA02D-622X	CMF RESISTOR	6.2kΩ,1/10W
	R25	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W
	R46	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R47	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W
	R48	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
	R49	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
	R50	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R52	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R54	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R55	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W
	R56	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R57	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R60	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R62	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R63	NDC21HJ-120X	CAPACITOR	12pF,50V
	R64	NDC21HJ-220X	CAPACITOR	22pF,50V
	R68	NRSA02J-471X	MG RESISTOR	470Ω,1/10W
	R69	NRSA02J-471X	MG RESISTOR	470Ω,1/10W
	R71	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R94	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W
	R95	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
	R137	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R143	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R158	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R168	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R169	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R170	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R171	NRSA02J-222X	MG RESISTOR	2.2kΩ,1/10W
	R181	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R195	NRSA02J-754X	MG RESISTOR	750kΩ,1/10W
	R197	NRSA02J-106X	MG RESISTOR	10MΩ,1/10W
	R201	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R202	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R209	NRSA02J-512X	MG RESISTOR	5.1kΩ,1/10W
	R210	NRSA02J-182X	MG RESISTOR	1.8kΩ,1/10W
	R211	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W
	R213	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R216	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R401	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R402	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R403	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W
	R404	NRSA02J-683X	MG RESISTOR	68kΩ,1/10W
	R405	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R408	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
	R409	NRSA02J-681X	MG RESISTOR	680Ω,1/10W
	R410	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
	R2001	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R2002	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
	R2003	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
	R2004	NRSA02J-224X	MG RESISTOR	220kΩ,1/10W
	R2005	NRSA02J-181X	MG RESISTOR	180Ω,1/10W
	R2006	NRSA02J-393X	MG RESISTOR	39kΩ,1/10W
	R2007	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W
	R2009	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
	R2013	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W
	R2014	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W
	R2018	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R2019	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R2020	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
	R2053	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W
	R2054	NRSA02J-153X	MG RESISTOR	15kΩ,1/10W
	R2055	NRSA02J-3R3X	MG RESISTOR	3.3Ω,1/10W
	R2056	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
	R2057	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2058	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W
	R2059	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2060	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W
	R2061	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
	R2062	NRSA02J-3R3X	MG RESISTOR	3.3Ω,1/10W
	R2063	NRSA02J-151X	MG RESISTOR	150Ω,1/10W
	R2064	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2065	NRSA02J-183X	MG RESISTOR	18kΩ,1/10W
	R2151	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
	R2152	NRSA02J-472X	MG RESISTOR	4.7kΩ,1/10W
	R2201	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2202	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2203	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
	R2204	NRSA02J-682X	MG RESISTOR	6.8kΩ,1/10W
	R2206	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
	R2207	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2208	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
	R2209	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
R2210			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W	R2626			NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W
R2211			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W	R2627			NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W
R2212			NRSA02J-104X	MG RESISTOR	100kΩ, 1/10W	R2628			QRE141J-221Y	RESISTOR	220Ω, 1/4W
R2213			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R2629			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W
R2214			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R2630			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W
R2215			NRSA02J-104X	MG RESISTOR	100kΩ, 1/10W	R2631			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2216			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R2632			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W
R2217			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R2633			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2218			NRSA02J-560X	MG RESISTOR	56Ω, 1/10W	R2634			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W
R2219			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W	R2635			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W
R2220			NRSA02J-272X	MG RESISTOR	2.7kΩ, 1/10W	R2636			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2221			NRSA02J-272X	MG RESISTOR	2.7kΩ, 1/10W	R2637			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W
R2222			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W	R2638			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2225			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	R2639			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W
R2226			NRSA02J-332X	MG RESISTOR	3.3kΩ, 1/10W	R2640			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W
R2227			NRSA02J-122X	MG RESISTOR	1.2kΩ, 1/10W	R2641			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2228			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R2642			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2229			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R2643			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W
R2230			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R2644			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W
R2231			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R2645			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2232			NRSA02J-123X	MG RESISTOR	12kΩ, 1/10W	R2646			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2233			NRSA02J-123X	MG RESISTOR	12kΩ, 1/10W	R2647			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W
R2234			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R3011			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2235			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R3012			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2236			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R3013			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2237			NRSA02J-511X	MG RESISTOR	510Ω, 1/10W	R3014			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2239			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R3015			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2240			NRSA02J-511X	MG RESISTOR	510Ω, 1/10W	R3016			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2241			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R3017			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2242			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R3018			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2243			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3019			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2244			NRSA02J-560X	MG RESISTOR	56Ω, 1/10W	R3020			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2251			NRSA02J-303X	MG RESISTOR	30kΩ, 1/10W	R3021			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2252			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	R3022			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2254			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	R3025			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2255			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3026			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2601			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3027			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2602			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3029			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2603			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3030			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2604			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3031			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2605			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3033			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2606			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R3034			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2607			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3035			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2608			NRSA02J-153X	MG RESISTOR	15kΩ, 1/10W	R3036			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2609			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3037			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2610			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R3038			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R2611			NRSA02J-332X	MG RESISTOR	3.3kΩ, 1/10W	R3039			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2612			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	R3040			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2613			NRSA02J-332X	MG RESISTOR	3.3kΩ, 1/10W	R3041			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2614			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	R3042			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2615			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	R3044			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2616			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	R3046			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2617			NRSA02J-562X	MG RESISTOR	5.6kΩ, 1/10W	R3047			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2618			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	R3048			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R2619			NRSA02J-562X	MG RESISTOR	5.6kΩ, 1/10W	R3049			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R2620			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	R3050			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R2621			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3051			NRSA02J-471X	MG RESISTOR	470Ω, 1/10W
R2622			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	R3053			NRSA02J-471X	MG RESISTOR	470Ω, 1/10W
R2623			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3054			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2624			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	R3055			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R2625			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	R3056			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R3057		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3231		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3060		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R3233		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3061		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R3234		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3062		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3235		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W
R3063		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3236		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W
R3066		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3237		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3069		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R3238		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3071		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3240		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3072		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3242		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R3073		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3301		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3074		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R3302		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3075		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R3303		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3076		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R3304		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3077		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3305		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3078		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3306		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3079		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R3307		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3080		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3308		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3081		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3309		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3083		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3310		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3086		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3311		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3087		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3312		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3088		NRSA02J-221X	MG RESISTOR 220Ω,1/10W	R3313		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3089		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3314		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3090		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3315		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3091		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3317		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3092		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3318		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3093		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3319		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3094		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3320		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3095		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3321		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3096		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3322		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3097		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3323		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3103		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3324		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3104		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3325		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3105		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3326		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3106		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R3327		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3201		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3328		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3202		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3329		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3203		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3330		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3204		NRSA02J-392X	MG RESISTOR 3.9kΩ,1/10W	R3331		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3205		QRE141J-750Y	RESISTOR 75Ω,1/4W	R3332		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3206		NRSA02J-822X	MG RESISTOR 8.2kΩ,1/10W	R3333		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3207		NRSA02J-822X	MG RESISTOR 8.2kΩ,1/10W	R3334		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3208		NRSA02J-221X	MG RESISTOR 220Ω,1/10W	R3335		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3209		NRSA02J-273X	MG RESISTOR 27kΩ,1/10W	R3336		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3210		NRSA02J-221X	MG RESISTOR 220Ω,1/10W	R3337		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3211		NRSA02J-273X	MG RESISTOR 27kΩ,1/10W	R3338		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3212		NRSA02J-474X	MG RESISTOR 470kΩ,1/10W	R3339		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3213		NRSA02J-334X	MG RESISTOR 330kΩ,1/10W	R3340		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3214		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3341		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3215		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3342		NRSA02J-105X	MG RESISTOR 1MΩ,1/10W
R3216		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3343		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R3217		NRSA02J-562X	MG RESISTOR 5.6kΩ,1/10W	R3344		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3218		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3345		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3219		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3346		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3220		NRSA02J-104X	MG RESISTOR 100kΩ,1/10W	R3347		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3222		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3348		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R3223		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W	R3350		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3224		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W	R3351		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3225		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R3352		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3229		NRSA02J-105X	MG RESISTOR 1MΩ,1/10W	R3353		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R3230		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R3354		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R3355			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3356			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3357			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3358			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3359			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3360			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3361			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3362			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3363			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3364			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3365			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3366			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3367			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3373			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3381			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3382			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3383			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3384			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3385			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3386			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W
R3387			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3388			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W
R3389			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3390			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3391			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R3392			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3393			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3394			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W
R4001			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R4003			NRSA02J-561X	MG RESISTOR 560Ω, 1/10W
R4004			NRSA02J-561X	MG RESISTOR 560Ω, 1/10W
R4005			NRSA02J-562X	MG RESISTOR 5.6kΩ, 1/10W
R4006			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W
R4007			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4008			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4009			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4010			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4011			NRSA02J-392X	MG RESISTOR 3.9kΩ, 1/10W
R4012			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W
R4013			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4014			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W
R4015			NRSA02J-223X	MG RESISTOR 22kΩ, 1/10W
R4016			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R4017			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4018			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R4019			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R4020			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R4021			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R6030			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R6031			NRSA02J-271X	MG RESISTOR 270Ω, 1/10W
R6032			NRSA02J-392X	MG RESISTOR 3.9kΩ, 1/10W
R6033			NRSA02J-182X	MG RESISTOR 1.8kΩ, 1/10W
R6082			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
VR2251			QVP0039-473Z	TRIM RESISTOR, A.REC FM
C1			QEKJ1CM-106	E CAPACITOR 10μF, 16V
C3			NCF21CZ-105X	CAPACITOR 1μF, 16V
C5			NCF21CZ-105X	CAPACITOR 1μF, 16V
C6			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C7			QEKJ1CM-107	E CAPACITOR 100μF, 16V
C9			NCF21CZ-105X	CAPACITOR 1μF, 16V
C11			NCF21CZ-105X	CAPACITOR 1μF, 16V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION
C12			NCB21EK-473X	CAPACITOR 0.047μF, 25V
C13			QERF1HM-335	E CAPACITOR 3.3μF, 50V
C14			NCB21EK-333X	CAPACITOR 0.033μF, 25V
C16			NCF21CZ-105X	CAPACITOR 1μF, 16V
C19			NDC21HJ-470X	CAPACITOR 47pF, 50V
C20			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
C21			NCB21CK-563X	CAPACITOR 0.056μF, 16V
C23			NCB21HK-223X	CAPACITOR 0.022μF, 50V
C24			NCB21CK-474X	CAPACITOR 0.47μF, 16V
C25			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C27			NDC21HJ-101X	CAPACITOR 100pF, 50V
C29			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
C30			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
C31			NCB21HK-223X	CAPACITOR 0.022μF, 50V
C32			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C34			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C37			QEKJ1CM-476	E CAPACITOR 47μF, 16V
C41			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C42			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C43			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C45			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C46			NDC21HJ-101X	CAPACITOR 100pF, 50V
C47			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C48			QEKJ0JM-476	E CAPACITOR 47μF, 6.3V
C49			NDC21HJ-221X	CAPACITOR 220pF, 50V
C54			QEKJ1CM-106	E CAPACITOR 10μF, 16V
C55			QEKJ1CM-106	E CAPACITOR 10μF, 16V
C56			QEKJ1HM-335	E CAPACITOR 3.3μF, 50V
C57			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C58			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C59			NCB21EK-473X	CAPACITOR 0.047μF, 25V
C62			NCF21CZ-334X	CAPACITOR 0.33μF, 16V
C63			NDC21HG-151X	CAPACITOR 150pF, 50V
C64			QEKJ0JM-227	E CAPACITOR 220μF, 6.3V
C65			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C73			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C74			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W
C76			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C77			NDC21HJ-240X	CAPACITOR 24pF, 50V
C79			NDC21HJ-120X	CAPACITOR 12pF, 50V
C85			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C86			QEKJ1CM-476	E CAPACITOR 47μF, 16V
C87			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C88			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C89			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C90			NCB21HK-103X	CAPACITOR 0.01μF, 50V
C91			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C92			NRSA02J-682X	MG RESISTOR 6.8kΩ, 1/10W
C98			NCF21CZ-105X	CAPACITOR 1μF, 16V
C107			NDC21HJ-5R0X	CAPACITOR 5pF, 50V
C134			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C141			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C201			QEKJ0JM-227	E CAPACITOR 220μF, 6.3V
C202			NCB21CK-224X	CAPACITOR 0.22μF, 16V
C204			NDC21HJ-100X	CAPACITOR 10pF, 50V
C209			NCB21CK-474X	CAPACITOR 0.47μF, 16V
C212			NCB21EK-104X	CAPACITOR 0.1μF, 25V
C213			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
C214			NCB21CK-224X	CAPACITOR 0.22μF, 16V
C215			NCB21CK-224X	CAPACITOR 0.22μF, 16V
C216			QEKJ0JM-227	E CAPACITOR 220μF, 6.3V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
C218		NCB21AK-105X	CAPACITOR 1μF,10V
C222		NCB21AK-105X	CAPACITOR 1μF,10V
C402		NCB21HK-103X	CAPACITOR 0.01μF,50V
C403		NDC21HJ-150X	CAPACITOR 15pF,50V
C404		NCB21HK-102X	CAPACITOR 0.001μF,50V
C406		NDC21HJ-470X	CAPACITOR 47pF,50V
C407		NCB21HK-223X	CAPACITOR 0.022μF,50V
C408		NDC21HJ-121X	CAPACITOR 120pF,50V
C409		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2002		QEKJ1CM-476	E CAPACITOR 47μF,16V
C2003		NCB21HK-123X	CAPACITOR 0.012μF,50V
C2004		QEKJ1CM-226	E CAPACITOR 22μF,16V
C2005		NCB21HK-102X	CAPACITOR 0.001μF,50V
C2006		NCB21HK-331X	CAPACITOR 330pF,50V
C2007		QEKJ1CM-106	E CAPACITOR 10μF,16V
C2008		NCB21HK-152X	CAPACITOR 0.0015μF,50V
C2009		QEKJ1EM-475	E CAPACITOR 4.7μF,25V
C2010		QEKJ1EM-475	E CAPACITOR 4.7μF,25V
C2011		NCB21EK-333X	CAPACITOR 0.033μF,25V
C2013		NCB21EK-333X	CAPACITOR 0.033μF,25V
C2015		QEKJ1CM-226	E CAPACITOR 22μF,16V
C2016		QEKJ1EM-475	E CAPACITOR 4.7μF,25V
C2051		NCB21HK-331X	CAPACITOR 330pF,50V
C2052		QFLC1HJ-333Z	F CAPACITOR 0.033μF,50V
C2053		NCB21HK-332X	CAPACITOR 0.0033μF,50V
C2054		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2055		QEKJ1CM-106	E CAPACITOR 10μF,16V
C2061		QFLC1HJ-333Z	F CAPACITOR 0.033μF,50V
C2062		NCB21HK-332X	CAPACITOR 0.0033μF,50V
C2063		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2064		QEKJ1CM-106	E CAPACITOR 10μF,16V
C2151		NDC21HJ-101X	CAPACITOR 100pF,50V
C2152		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2201		QEKJ1HM-104	E CAPACITOR 0.1μF,50V
C2202		QEKJ1HM-104	E CAPACITOR 0.1μF,50V
C2204		QETJ1HM-226	E CAPACITOR 22μF,50V
C2205		QETJ1HM-475	E CAPACITOR 4.7μF,50V
C2206		QETJ1HM-475	E CAPACITOR 4.7μF,50V
C2207		QETN1EM-476	E CAPACITOR 47μF,25V
C2208		QETJ1HM-106	E CAPACITOR 10μF,50V
C2209		QETN1HM-106	E CAPACITOR 10μF,50V
C2210		QETN1HM-106	E CAPACITOR 10μF,50V
C2211		QETN1HM-106	E CAPACITOR 10μF,50V
C2212		QETN1EM-476	E CAPACITOR 47μF,25V
C2213		QETN1EM-476	E CAPACITOR 47μF,25V
C2214		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2215		QETJ1HM-106	E CAPACITOR 10μF,50V
C2218		QETN1EM-476	E CAPACITOR 47μF,25V
C2219		QETN1EM-476	E CAPACITOR 47μF,25V
C2220		QETN1EM-476	E CAPACITOR 47μF,25V
C2222		QETJ1HM-226	E CAPACITOR 22μF,50V
C2223		NCB21HK-221X	CAPACITOR 220pF,50V
C2224		NCB21HK-221X	CAPACITOR 220pF,50V
C2225		QETJ1HM-224	E CAPACITOR 0.22μF,50V
C2226		QETJ1EM-476	E CAPACITOR 47μF,25V
C2227		QETJ1EM-476	E CAPACITOR 47μF,25V
C2230		NCB21HK-473X	CAPACITOR 0.047μF,50V
C2231		NCB21HK-153X	CAPACITOR 0.015μF,50V
C2232		QETJ1HM-224	E CAPACITOR 0.22μF,50V
C2233		NCB21HK-153X	CAPACITOR 0.015μF,50V
C2234		NCB21HK-473X	CAPACITOR 0.047μF,50V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
C2251		NCB21EK-104X	CAPACITOR 0.1μF,25V
C2252		NCB21HK-222X	CAPACITOR 0.0022μF,50V
C2253		NCB21HK-222X	CAPACITOR 0.0022μF,50V
C2257		QETJ1EM-476	E CAPACITOR 47μF,25V
C2258		NCB21EK-104X	CAPACITOR 0.1μF,25V
C2259		NCB21EK-104X	CAPACITOR 0.1μF,25V
C2260		NDC21HJ-181X	CAPACITOR 180pF,50V
C2261		NCB21HK-103X	CAPACITOR 0.01μF,50V
C2262		NDC21HJ-101X	CAPACITOR 100pF,50V
C2263		NDC21HJ-101X	CAPACITOR 100pF,50V
C2601		QETN1HM-106	E CAPACITOR 10μF,50V
C2602		QETN1EM-476	E CAPACITOR 47μF,25V
C2603		QETN1EM-476	E CAPACITOR 47μF,25V
C2604		QETN1EM-476	E CAPACITOR 47μF,25V
C2605		QETN1HM-105	E CAPACITOR 1μF,50V
C2606		QETN1HM-105	E CAPACITOR 1μF,50V
C2607		QETJ1HM-106	E CAPACITOR 10μF,50V
C2608		QETJ1EM-476	E CAPACITOR 47μF,25V
C2609		QETN1EM-476	E CAPACITOR 47μF,25V
C2610		QETN1EM-476	E CAPACITOR 47μF,25V
C2611		QETN1EM-476	E CAPACITOR 47μF,25V
C2612		QETN1EM-476	E CAPACITOR 47μF,25V
C2613		NDC21HJ-101X	CAPACITOR 100pF,50V
C2614		NDC21HJ-101X	CAPACITOR 100pF,50V
C2617		NDC21HJ-101X	CAPACITOR 100pF,50V
C2618		NDC21HJ-101X	CAPACITOR 100pF,50V
C2619		NDC21HJ-101X	CAPACITOR 100pF,50V
C2620		NDC21HJ-101X	CAPACITOR 100pF,50V
C2621		NDC21HJ-101X	CAPACITOR 100pF,50V
C2622		NDC21HJ-101X	CAPACITOR 100pF,50V
C2623		NDC21HJ-101X	CAPACITOR 100pF,50V
C2624		NDC21HJ-101X	CAPACITOR 100pF,50V
C2625		NDC21HJ-101X	CAPACITOR 100pF,50V
C2626		NDC21HJ-101X	CAPACITOR 100pF,50V
C3001		NCB21CK-104X	CAPACITOR 0.1μF,16V
C3002		NCB21HK-103X	CAPACITOR 0.01μF,50V
C3003		QEKJ1HM-106	E CAPACITOR 10μF,50V
C3004		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3007		NCB21HK-102X	CAPACITOR 0.001μF,50V
C3008		NCB21HK-102X	CAPACITOR 0.001μF,50V
C3010		QE20244-229	EDL CAPACITOR 0.0022F,5.5V
C3012		QEKJ0JM-107	E CAPACITOR 100μF,6.3V
C3013		NCB21HK-103X	CAPACITOR 0.01μF,50V
C3014		QEKJ0JM-226	E CAPACITOR 22μF,6.3V
C3016		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3020		NDC21HJ-101X	CAPACITOR 100pF,50V
C3021		NDC21HJ-101X	CAPACITOR 100pF,50V
C3022		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3023		QEKJ1CM-106	E CAPACITOR 10μF,16V
C3024		NDC21HJ-120X	CAPACITOR 12pF,50V
C3026		NCB21HK-103X	CAPACITOR 0.01μF,50V
C3027		QEKJ1CM-106	E CAPACITOR 10μF,16V
C3028		NDC21HJ-101X	CAPACITOR 100pF,50V
C3029		NDC21HJ-101X	CAPACITOR 100pF,50V
C3030		QEKJ0JM-226	E CAPACITOR 22μF,6.3V
C3031		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3032		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3033		NCB21EK-104X	CAPACITOR 0.1μF,25V
C3036		NDC21HJ-180X	CAPACITOR 18pF,50V
C3037		NDC21HJ-120X	CAPACITOR 12pF,50V
C3039		NDC21HJ-101X	CAPACITOR 100pF,50V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
C3040			NCB21EK-473X	CAPACITOR 0.047μF,25V	L6002			QQL29BK-100Z	COIL 10μH
C3041			NDC21HJ-100X	CAPACITOR 10pF,50V	L6031			QQL29BK-1R0Z	COIL 1μH
C3042			QETN0JM-477	E CAPACITOR 470μF,6.3V	L6701			QQL231J-3R3Y	COIL 3.3μH
C3050			NCB21EK-104X	CAPACITOR 0.1μF,25V	CF3301			QAX0227-001	RESONATOR
C3051			NCB21EK-104X	CAPACITOR 0.1μF,25V	X1			QAX0530-001	CRYSTAL RESONATOR
C3055			NCB21HK-221X	CAPACITOR 220pF,50V	X3001			QAX0444-001	CRYSTAL RESONATOR
C3070			NCB21EK-104X	CAPACITOR 0.1μF,25V	X3002			QAX0527-001	CRYSTAL RESONATOR
C3071			NCB21EK-104X	CAPACITOR 0.1μF,25V	S3001			PESW0589	PUSH SWITCH,REC SAFETY
C3310			NCB21HK-103X	CAPACITOR 0.01μF,50V	S3002			PU61320	PUSH SWITCH,CASSETTE SW
C3311			QEKJ1HM-335	E CAPACITOR 3.3μF,50V	S3003			PU61320	PUSH SWITCH,S CASSETTE SW
C3312			NCB21HK-103X	CAPACITOR 0.01μF,50V	PC3001			SG-246	IC(PHOTO SENSOR
C3313			NCB21EK-473X	CAPACITOR 0.047μF,25V	PC3002			SG-246	IC(PHOTO SENSOR
C4001			QEKJ0JM-226	E CAPACITOR 22μF,6.3V	T2051			PELN0860	OSC TRANSFORMER
C4002			NCB21EK-104X	CAPACITOR 0.1μF,25V	T2052			PELN0861	OSC TRANSFORMER
C4003			NCB21HK-102X	CAPACITOR 0.001μF,50V	CN1			QGF1028C1-13	FPC CONNECTOR,(1-13)U.DRUM
C4004			QEKJ0JM-226	E CAPACITOR 22μF,6.3V	CN2001			QGD2003C1-07	CONNECTOR,(1-7)A/C HEAD
C4005			NCB21HK-222X	CAPACITOR 0.0022μF,50V	CN2002			QGD2003C1-02	CONNECTOR,(1-2)FE HEAD
C4006			QEKJ0JM-476	E CAPACITOR 47μF,6.3V	CN2601			QGF1016C3-08	FFC/FPC CONNECTOR,(1-8)DV AUDIO
C4007			NCB21HK-561X	CAPACITOR 560pF,50V	CN3001			QGF1207C1-05	FPC CONNECTOR,(1-5)DRUM MDA
C4008			NCB21AK-105X	CAPACITOR 1μF,10V	CN3002			QGD2003C1-02	CONNECTOR,(1-2)LOADING MOTOR
C4009			NCB21HK-563X	CAPACITOR 0.056μF,50V	CN3003			QGB2002L1-08	CONNECTOR,(1-8)CAPSTAN MOTOR
C4010			NCB21EK-223X	CAPACITOR 0.022μF,25V	CN3004			PU61434-1-1	CONNECTOR,(1-5)ROTARY ENCODER
C4011			NCB21CK-104X	CAPACITOR 0.1μF,16V	CN3011			QGF1207F1-11	FPC CONNECTOR,(1-11)FRONT
C4012			NCB21EK-224X	CAPACITOR 0.22μF,25V	CN3301			QGF1016C3-10	FFC/FPC CONNECTOR,(1-10)DV MAIN
C4013			NCB21HK-563X	CAPACITOR 0.056μF,50V	CN7503			QGB2024K1-11S	CONNECTOR,(1-11)TERMINAL
C4014			NDC21HJ-101X	CAPACITOR 100pF,50V	CN7504			QGB2024K1-07S	CONNECTOR,(1-7)TERMINAL
C4015			NCB21HJ-102X	CAPACITOR 0.001μF,50V	CN7505			QGB2024K1-12S	CONNECTOR,(1-12)TERMINAL
C6006			NCB21HK-103X	CAPACITOR 0.01μF,50V	CN7506			QGB2024K1-11S	CONNECTOR,(1-11)TERMINAL
C6007			QEKJ1CM-107	E CAPACITOR 100μF,16V	CN7507			QGF1207F1-10	FPC CONNECTOR,(1-10)FRONT(A/V)
C6008			NCB21HK-103X	CAPACITOR 0.01μF,50V	CN7508			QGF1207C1-13	FPC CONNECTOR,(1-13)REG
C6016			NCB21HK-103X	CAPACITOR 0.01μF,50V	CN7509			QGF1207C1-12	FPC CONNECTOR,(1-12)REG
C6020			NDC21HJ-101X	CAPACITOR 100pF,50V	△ CP3003			ICP-N25	CIRCUIT PROTECTOR
C6021			NDC21HJ-101X	CAPACITOR 100pF,50V	△ CP3004			ICP-N15	CIRCUIT PROTECTOR
C6022			NDC21HJ-101X	CAPACITOR 100pF,50V	△ CP4001			ICP-N15	CIRCUIT PROTECTOR
C6032			NCB21HK-473X	CAPACITOR 0.047μF,50V					
C6037			QEKJ1HM-106	E CAPACITOR 10μF,50V					
C7503			QEKJ1HM-105	E CAPACITOR 1μF,50V					
C7504			QEKJ0JM-107	E CAPACITOR 100μF,6.3V					
L1			QQL29BJ-100Z	COIL 10μH					
L3			QQL29BJ-6R8Z	COIL 6.8μH					
L4			QQL29BJ-100Z	COIL 10μH					
L7			QQL29BJ-100Z	COIL 10μH					
L9			QQL29BJ-100Z	COIL 10μH					
L12			QQL071J-330Y	COIL 33μH					
L13			QQL071J-120Y	COIL 12μH					
L14			QQL071J-820Y	COIL 82μH					
L16			QQL29BJ-100Z	COIL 10μH					
L18			QQR0967-001	COIL 12μH					
L201			QQL29BK-1R0Z	COIL 1μH					
L202			QQL071J-330Y	COIL 33μH					
L204			QQL29BJ-100Z	COIL 10μH					
L401			QQL071J-100Y	COIL 10μH					
L402			QQL231J-150Y	COIL 15μH					
L2201			QUY153-050Y	COIL					
L2251			QQL29BJ-100Z	COIL 10μH					
L2252			QQL29BJ-151Z	COIL 150μH					
L3001			QQL29BK-100Z	COIL 10μH					
L3002			QQL29BJ-330Z	COIL 33μH					
L3003			QQL29BJ-330Z	COIL 33μH					
L3301			QQL231J-100Y	COIL 10μH					
L6001			QQL29BK-100Z	COIL 10μH					

3D SVHS BOARD ASSEMBLY <05>									
PW1			LPA10033-10A	3D SVHS BOARD ASSY					
IC1001			JCP8008	IC					
IC1002			VC2076MP-XE	IC					
IC1006			HA118092FP1	IC					
IC1007			BA10358F-XE	IC					
IC1401			JCP8010-2	IC(DIGITAL)					
IC1402			MN47V77S-XE	IC					
Q1004			DTC144WU	TRANSISTOR					
			or RN1309	TRANSISTOR					
			or UN521E	TRANSISTOR					
Q1005			DTC144WU	TRANSISTOR					
			or UN521E	TRANSISTOR					
			or RN1309	TRANSISTOR					
Q1006			2SA1576A/QR-X	TRANSISTOR					
			or 2PA1576/R-X	TRANSISTOR					
			or 2SB1218A/QR-X	TRANSISTOR					
Q1007			2SC4081/QRS-X	TRANSISTOR					
			or 2SD1819A/QRS-X	TRANSISTOR					
			or 2PC4081/R-X	TRANSISTOR					

△ REF No. PART No. PART NAME, DESCRIPTION

Q1012	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q1014	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q1015	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q1016	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q1021	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q1022	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q1401	2SC1317/RS-T	TRANSISTOR
Q1402	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q1403	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q1404	2SC4081/S/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q1405	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q1406	2SA1576A/QR/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1407	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q1408	2SA1576A/QR/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1409	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q1410	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q1411	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
	or 2SB1218A/QR/-X	TRANSISTOR
Q1412	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q1413	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q1414	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR
Q1416	DTC144WU	TRANSISTOR
	or RN1309	TRANSISTOR
	or UN521E	TRANSISTOR

△ REF No. PART No. PART NAME, DESCRIPTION

Q1417	2SC4081/QRS/-X	TRANSISTOR	
	or 2PC4081/R/-X	TRANSISTOR	
	or 2SD1819A/QRS/-X	TRANSISTOR	
Q1418	2SC4081/QRS/-X	TRANSISTOR	
	or 2SD1819A/QRS/-X	TRANSISTOR	
	or 2PC4081/R/-X	TRANSISTOR	
D1002	1SS133	DIODE	
	or 1N4148M	DIODE	
D1003	1SS133	DIODE	
	or 1N4148M	DIODE	
D1004	1SS133	DIODE	
	or 1N4148M	DIODE	
D1006	1SS133	DIODE	
	or 1N4148M	DIODE	
D1401	RD4.3ES/B2/-T2	ZENER DIODE	
	or MTZJ4.3B	ZENER DIODE	
D1402	1SS133	DIODE	
	or 1N4148M	DIODE	
R1002	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R1003	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
R1004	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R1008	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R1009	NRSA02J-125X	MG RESISTOR	1.2MΩ,1/10W
R1010	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W
R1011	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W
R1012	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W
R1013	NRVA02D-471X	CMF RESISTOR	470Ω,1/10W
R1014	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W
R1015	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W
R1016	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W
R1017	NRSA02J-162X	MG RESISTOR	1.6kΩ,1/10W
R1018	NRSA02J-151X	MG RESISTOR	150Ω,1/10W
R1019	NRSA02J-391X	MG RESISTOR	390Ω,1/10W
R1020	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W
R1021	NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W
R1023	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W
R1025	NRSA02J-823X	MG RESISTOR	82kΩ,1/10W
R1026	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
R1027	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
R1028	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
R1029	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
R1030	NRSA02J-473X	MG RESISTOR	47kΩ,1/10W
R1031	NRSA02J-562X	MG RESISTOR	5.6kΩ,1/10W
R1032	NRSA02J-181X	MG RESISTOR	180Ω,1/10W
R1035	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R1037	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R1038	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R1039	NRSA02J-394X	MG RESISTOR	390kΩ,1/10W
R1045	NRSA02J-272X	MG RESISTOR	2.7kΩ,1/10W
R1046	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
R1047	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R1048	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R1049	NRSA02J-475X	MG RESISTOR	4.7MΩ,1/10W
R1053	NRSA02J-102X	MG RESISTOR	1kΩ,1/10W
R1054	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
R1055	NRVA02D-563X	CMF RESISTOR	56kΩ,1/10W
R1056	NRVA02D-224X	CMF RESISTOR	220kΩ,1/10W
R1058	NRSA02J-273X	MG RESISTOR	27kΩ,1/10W
R1059	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R1060	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R1063	NRSA02J-152X	MG RESISTOR	1.5kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R1064			NRSA02J-332X	MG RESISTOR 3.3kΩ, 1/10W	R1459			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R1065			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R1460			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R1066			NRSA02J-272X	MG RESISTOR 2.7kΩ, 1/10W	R1461			NRSA02J-182X	MG RESISTOR 1.8kΩ, 1/10W
R1067			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R1462			NRSA02J-272X	MG RESISTOR 2.7kΩ, 1/10W
R1068			NRSA02J-361X	MG RESISTOR 360Ω, 1/10W	R1463			NRSA02J-682X	MG RESISTOR 6.8kΩ, 1/10W
R1069			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	R1465			NRSA02J-821X	MG RESISTOR 820Ω, 1/10W
R1070			NRSA02J-391X	MG RESISTOR 390Ω, 1/10W	R1467			NRSA02J-682X	MG RESISTOR 6.8kΩ, 1/10W
R1071			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W	R1468			NRSA02J-162X	MG RESISTOR 1.6kΩ, 1/10W
R1072			NRSA02J-682X	MG RESISTOR 6.8kΩ, 1/10W	R1470			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R1073			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R1471			NRSA02J-333X	MG RESISTOR 33kΩ, 1/10W
R1401			NRSA02J-331X	MG RESISTOR 330Ω, 1/10W	R1472			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R1402			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	VR1002			QVZ3521-104Z	V RESISTOR, P BURST LEVEL
R1403			NRSA02J-223X	MG RESISTOR 22kΩ, 1/10W	VR1401			QVP0039-103Z	TRIM RESISTOR, D/A LEVEL
R1404			NRSA02J-123X	MG RESISTOR 12kΩ, 1/10W	C1001			QEKJ0JM-476	E CAPACITOR 47μF, 6.3V
R1405			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1002			QEKJ1HM-474	E CAPACITOR 0.47μF, 50V
R1406			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1003			QEKJ1CM-106	E CAPACITOR 10μF, 16V
R1407			NRSA02J-821X	MG RESISTOR 820Ω, 1/10W	C1005			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
R1408			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	C1006			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1409			NRSA02J-681X	MG RESISTOR 680Ω, 1/10W	C1007			NCF21EZ-104X	CAPACITOR 0.1μF, 25V
R1410			NRSA02J-223X	MG RESISTOR 22kΩ, 1/10W	C1010			NCF21EZ-104X	CAPACITOR 0.1μF, 25V
R1411			NRSA02J-243X	MG RESISTOR 24kΩ, 1/10W	C1011			NDC21HJ-150X	CAPACITOR 15pF, 50V
R1412			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W	C1013			NCF21EZ-104X	CAPACITOR 0.1μF, 25V
R1413			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1014			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1414			NRSA02J-331X	MG RESISTOR 330Ω, 1/10W	C1015			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
R1415			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1016			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1416			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1017			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1417			NRSA02J-821X	MG RESISTOR 820Ω, 1/10W	C1019			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1418			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1020			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1419			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	C1021			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1420			NRSA02J-152X	MG RESISTOR 1.5kΩ, 1/10W	C1022			QEKJ1HM-105	E CAPACITOR 1μF, 50V
R1422			NRSA02J-391X	MG RESISTOR 390Ω, 1/10W	C1023			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1423			NRSA02J-821X	MG RESISTOR 820Ω, 1/10W	C1024			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1425			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1026			NCF21EZ-104X	CAPACITOR 0.1μF, 25V
R1428			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1027			NCF21EZ-104X	CAPACITOR 0.1μF, 25V
R1429			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1028			QEKJ0JM-337	E CAPACITOR 330μF, 6.3V
R1430			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1029			QEKJ1HM-104	E CAPACITOR 0.1μF, 50V
R1431			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1030			QEKJ1HM-105	E CAPACITOR 1μF, 50V
R1432			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1031			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1433			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	C1033			QEKJ1HM-105	E CAPACITOR 1μF, 50V
R1434			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W	C1034			QEPF1HM-105	NP E CAPACITOR 1μF, 50V
R1435			NRSA02J-242X	MG RESISTOR 2.4kΩ, 1/10W	C1035			QEKJ1EM-475	E CAPACITOR 4.7μF, 25V
R1436			NRSA02J-153X	MG RESISTOR 15kΩ, 1/10W	C1036			QEKJ0JM-226	E CAPACITOR 22μF, 6.3V
R1437			NRSA02J-123X	MG RESISTOR 12kΩ, 1/10W	C1037			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1438			NRSA02J-821X	MG RESISTOR 820Ω, 1/10W	C1038			QEKJ1HM-225	E CAPACITOR 2.2μF, 50V
R1439			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	C1039			QEKJ1CM-476	E CAPACITOR 47μF, 16V
R1440			NRSA02J-223X	MG RESISTOR 22kΩ, 1/10W	C1040			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1442			NRSA02J-223X	MG RESISTOR 22kΩ, 1/10W	C1041			NDC21HG-301X	CAPACITOR 300pF, 50V
R1443			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	C1042			NDC21HG-301X	CAPACITOR 300pF, 50V
R1444			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	C1043			NDC21HG-221X	CAPACITOR 220pF, 50V
R1445			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1044			NDC21HG-820X	CAPACITOR 82pF, 50V
R1446			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	C1045			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1447			NRSA02J-152X	MG RESISTOR 1.5kΩ, 1/10W	C1046			NDC21HG-271X	CAPACITOR 270pF, 50V
R1448			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W	C1047			NDC21HJ-101X	CAPACITOR 100pF, 50V
R1449			NRSA02J-470X	MG RESISTOR 47Ω, 1/10W	C1048			NDC21HJ-181X	CAPACITOR 180pF, 50V
R1451			NRSA02J-681X	MG RESISTOR 680Ω, 1/10W	C1049			NDC21HG-301X	CAPACITOR 300pF, 50V
R1452			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1050			NDC21HG-301X	CAPACITOR 300pF, 50V
R1454			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1056			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1455			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1057			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1456			NRSA02J-471X	MG RESISTOR 470Ω, 1/10W	C1058			NCB21HK-103X	CAPACITOR 0.01μF, 50V
R1457			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1063			NDC21HJ-101X	CAPACITOR 100pF, 50V
R1458			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	C1064			NCB21HK-103X	CAPACITOR 0.01μF, 50V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C1065	QEKJ0JM-227	E CAPACITOR	220μF,6.3V	
C1066	NCB21EK-223X	CAPACITOR	0.022μF,25V	
C1067	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1068	QEKJ1HM-105	E CAPACITOR	1μF,50V	
C1069	QEKJ1CM-106	E CAPACITOR	10μF,16V	
C1070	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1071	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1072	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1073	NDC21HJ-150X	CAPACITOR	15pF,50V	
C1074	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1082	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1086	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1087	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1088	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1089	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1092	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1095	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1401	QEKJ1CM-336	E CAPACITOR	33μF,16V	
C1402	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1403	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1404	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1405	NDC21HJ-220X	CAPACITOR	22pF,50V	
C1406	NDC21HJ-6R0X	CAPACITOR	6pF,50V	
C1407	NDC21HJ-390X	CAPACITOR	39pF,50V	
C1408	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1409	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1410	QEKJ0JM-337	E CAPACITOR	330μF,6.3V	
C1411	QEKJ1CM-106	E CAPACITOR	10μF,16V	
C1412	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1413	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1414	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1415	NDC21HJ-221X	CAPACITOR	220pF,50V	
C1416	NDC21HJ-391X	CAPACITOR	390pF,50V	
C1417	NDC21HJ-680X	CAPACITOR	68pF,50V	
C1418	NDC21HJ-8R0X	CAPACITOR	8pF,50V	
C1419	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1420	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1421	NDC21HJ-680X	CAPACITOR	68pF,50V	
C1422	NDC21HJ-330X	CAPACITOR	33pF,50V	
C1424	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1425	QEKJ0JM-337	E CAPACITOR	330μF,6.3V	
C1426	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1427	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1428	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1429	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1430	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1431	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1432	QEKJ1EM-475	E CAPACITOR	4.7μF,25V	
C1433	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1434	QEKJ0JM-337	E CAPACITOR	330μF,6.3V	
C1435	QEKJ1HM-105	E CAPACITOR	1μF,50V	
C1436	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1437	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1438	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1439	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1440	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1441	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1442	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1443	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1444	QEKJ1HM-105	E CAPACITOR	1μF,50V	
C1445	NCF21EZ-104X	CAPACITOR	0.1μF,25V	

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C1446	NCB21EK-104X	CAPACITOR	0.1μF,25V	
C1447	NCB21HK-222X	CAPACITOR	0.0022μF,50V	
C1448	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1449	QEKJ0JM-337	E CAPACITOR	330μF,6.3V	
C1450	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1451	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1454	NDC21HJ-220X	CAPACITOR	22pF,50V	
C1455	NDC21HJ-390X	CAPACITOR	39pF,50V	
C1457	NCF21EZ-104X	CAPACITOR	0.1μF,25V	
C1458	NCB21HK-103X	CAPACITOR	0.01μF,50V	
C1459	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1460	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1461	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1462	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1463	NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	
C1464	NDC21HJ-330X	CAPACITOR	33pF,50V	
C1465	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1468	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1469	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1470	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1471	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1472	NDC21HJ-470X	CAPACITOR	47pF,50V	
C1473	NDC21HJ-470X	CAPACITOR	47pF,50V	
L1001	QQL29BJ-220Z	COIL	22μH	
L1004	QQL071J-680Y	COIL	68μH	
L1006	QQL29BJ-101Z	COIL	100μH	
L1008	QQL29BJ-100Z	COIL	10μH	
L1401	QQL071J-330Y	COIL	33μH	
L1402	QQL29BJ-100Z	COIL	10μH	
L1404	QQL071J-8R2Y	COIL	8.2μH	
L1405	QQL071J-150Y	COIL	15μH	
L1406	QQL071J-6R8Y	COIL	6.8μH	
L1407	QQL29BJ-100Z	COIL	10μH	
L1408	QQL29BJ-100Z	COIL	10μH	
L1409	QQL071J-330Y	COIL	33μH	
L1410	QQL29BJ-4R7Z	COIL	4.7μH	
L1411	QQL071J-1R0Y	COIL	1μH	
LC1401	QQR0657-013Z	NOISE FILTER		
LC1402	QQR0657-010Z	NOISE FILTER		
SD1	LP30621-001A	SHIELD CASE(SVHS 3D)		
SD2	LP30406-001A	SHIELD PLATE(SVHS)		
BK1	LP40077-001A	BRACKET(BOARD)		
CN1001	QGG2503K2-30	HEADER PIN		
CN1002	QGG2503K2-30	HEADER PIN		
CN1003	QGF1217F1-07	FPC CONNECTOR,(1-7)TERMINAL		

TERMINAL BOARD ASSEMBLY <06>

PW1	LPA10077-01C	TERMINAL BOARD ASSY
IC7101	MM1031XM	IC
IC7102	MM1224XF	IC
IC7103	MM1228XF	IC
IC7104	MM1117XF	IC
IC7105	MM1113XF	IC
IC7106	MM1024AF	IC
IC7107	LC74789N-9773	IC (OSD)
IC7108	AN3916	IC
IC7110	MM1113XF	IC

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
IC7111			MM1117XF	IC		R7117			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
IC7112			MM1111XF	IC		R7118			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
IC7113			BH7635S	IC		R7119			NRSA02J-561X	MG RESISTOR	560Ω, 1/10W
IC7114			MM1111XF	IC		R7120			NRSA02J-820X	MG RESISTOR	82Ω, 1/10W
Q7101			2SA1576A/QR/-X	TRANSISTOR		R7121			NRSA02J-620X	CMF RESISTOR	62Ω, 1/10W
Q7102			2SC4081/QRS/-X	TRANSISTOR		R7122			NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W
Q7103			2SC4081/QRS/-X	TRANSISTOR		R7123			NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W
Q7104			2SA1576A/QR/-X	TRANSISTOR		R7124			NRSA02J-561X	MG RESISTOR	560Ω, 1/10W
Q7105			2SC4081/QRS/-X	TRANSISTOR		R7126			NRVA02D-750X	CMF RESISTOR	75Ω, 1/10W
Q7106			2SC4081/QRS/-X	TRANSISTOR		R7127			NRSA02J-394X	MG RESISTOR	390kΩ, 1/10W
Q7107			2SC4081/QRS/-X	TRANSISTOR		R7128			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
Q7108			2SA1576A/QR/-X	TRANSISTOR		R7129			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W
Q7109			2SC4081/QRS/-X	TRANSISTOR		R7130			NRVA02D-621X	CMF RESISTOR	620Ω, 1/10W
Q7110			2SC4081/QRS/-X	TRANSISTOR		R7131			NRSA02J-562X	MG RESISTOR	5.6kΩ, 1/10W
Q7111			2SA1576A/QR/-X	TRANSISTOR		R7132			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W
Q7112			2SC4081/QRS/-X	TRANSISTOR		R7133			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
Q7113			2SA1576A/QR/-X	TRANSISTOR		R7134			NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W
Q7114			DTC144WU	TRANSISTOR		R7135			NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
Q7115			DTC144WU	TRANSISTOR		R7136			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W
Q7116			2SC4226/4/-X	TRANSISTOR		R7137			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W
Q7117			2SC4226/4/-X	TRANSISTOR		R7138			NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W
Q7118			2SC4226/4/-X	TRANSISTOR		R7139			NRSA02J-562X	MG RESISTOR	5.6kΩ, 1/10W
Q7119			2SC4226/4/-X	TRANSISTOR		R7140			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W
Q7121			DTC144WU	TRANSISTOR		R7141			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W
Q7122			2SA1576A/QR/-X	TRANSISTOR		R7142			NRSA02J-332X	MG RESISTOR	3.3kΩ, 1/10W
Q7123			2SC4081/QRS/-X	TRANSISTOR		R7143			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W
Q7124			2SA1576A/QR/-X	TRANSISTOR		R7144			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W
Q7125			2SC4081/QRS/-X	TRANSISTOR		R7145			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
Q7126			2SA1576A/QR/-X	TRANSISTOR		R7146			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
Q7127			2SA1576A/QR/-X	TRANSISTOR		R7147			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
Q7128			2SC4081/QRS/-X	TRANSISTOR		R7148			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
Q7129			2SC4081/QRS/-X	TRANSISTOR		R7149			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
Q7130			2SA1576A/QR/-X	TRANSISTOR		R7150			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W
Q7131			2SA1576A/QR/-X	TRANSISTOR		R7151			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W
Q7132			2SC4081/QRS/-X	TRANSISTOR		R7152			NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W
Q7133			2SA1576A/QR/-X	TRANSISTOR		R7153			NRSA02J-391X	MG RESISTOR	390Ω, 1/10W
Q7134			2SC4081/QRS/-X	TRANSISTOR		R7154			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
Q7135			2SC4081/QRS/-X	TRANSISTOR		R7155			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
Q7136			2SC4081/QRS/-X	TRANSISTOR		R7156			NRSA02J-182X	MG RESISTOR	1.8kΩ, 1/10W
Q7137			2SA1576A/QR/-X	TRANSISTOR		R7157			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W
Q7138			2SC4081/QRS/-X	TRANSISTOR		R7158			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W
Q7140			DTC114EU	TRANSISTOR		R7159			NRSA02J-182X	MG RESISTOR	1.8kΩ, 1/10W
			or UN5211	TRANSISTOR		R7160			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
D7101			DA204U	DIODE		R7161			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
D7103			1SS133	DIODE		R7162			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
D7104			1SS133	DIODE		R7163			NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W
D7105			1SS133	DIODE		R7164			NRSA02J-122X	MG RESISTOR	1.2kΩ, 1/10W
R7103			NRSA02J-272X	MG RESISTOR	2.7kΩ, 1/10W	R7165			NRVA02D-471X	CMF RESISTOR	470Ω, 1/10W
R7104			NRVA02D-331X	CMF RESISTOR	330Ω, 1/10W	R7166			NRVA02D-471X	CMF RESISTOR	470Ω, 1/10W
R7105			NRVA02D-181X	CMF RESISTOR	180Ω, 1/10W	R7167			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R7106			NRVA02D-471X	CMF RESISTOR	470Ω, 1/10W	R7168			NRVA02D-223X	CMF RESISTOR	22kΩ, 1/10W
R7107			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R7169			NRSA02J-274X	MG RESISTOR	270kΩ, 1/10W
R7108			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W	R7170			NRSA02J-183X	MG RESISTOR	18kΩ, 1/10W
R7109			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	R7171			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R7110			NRVA02D-471X	CMF RESISTOR	470Ω, 1/10W	R7172			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
R7111			NRVA02D-471X	CMF RESISTOR	470Ω, 1/10W	R7173			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
R7112			NRSA02J-333X	MG RESISTOR	33kΩ, 1/10W	R7174			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
R7113			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	R7175			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W
R7114			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	R7176			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R7115			NRVA02D-271X	CMF RESISTOR	270Ω, 1/10W	R7177			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W
R7116			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W	R7178			NRVA02D-561X	CMF RESISTOR	560Ω, 1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
R7179		NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W	C7128		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7180		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C7129		QEKJ0JM-107	E CAPACITOR	100μF, 6.3V
R7181		NRSA02J-682X	MG RESISTOR	6.8kΩ, 1/10W	C7130		QEKJ0JM-107	E CAPACITOR	100μF, 6.3V
R7182		NRSA02J-153X	MG RESISTOR	15kΩ, 1/10W	C7131		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7183		NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	C7132		QEPF1CM-106	NP E CAPACITOR	10μF, 16V
R7184		QRE121J-391Y	RESISTOR	390Ω, 1/2W	C7133		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7185		NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C7134		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7186		NRSA02J-561X	MG RESISTOR	560Ω, 1/10W	C7135		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7187		NRSA02J-272X	MG RESISTOR	2.7kΩ, 1/10W	C7136		QEKJ0JM-107	E CAPACITOR	100μF, 6.3V
R7188		NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W	C7138		QERF0JM-107	E CAPACITOR	100μF, 6.3V
R7189		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C7139		QEKJ0JM-227	E CAPACITOR	220μF, 6.3V
R7190		NRSA02J-332X	MG RESISTOR	3.3kΩ, 1/10W	C7140		NCB21EK-104X	CAPACITOR	0.1μF, 25V
R7191		NRVA02D-680X	CMF RESISTOR	68Ω, 1/10W	C7141		NCB21CK-105X	CAPACITOR	1μF, 16V
R7192		NRSA02J-750X	MG RESISTOR	75Ω, 1/10W	C7142		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7193		NRSA02J-750X	MG RESISTOR	75Ω, 1/10W	C7145		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7194		NRVA02D-750X	CMF RESISTOR	75Ω, 1/10W	C7146		NDC21HJ-330X	CAPACITOR	33pF, 50V
R7195		NRSA02J-750X	MG RESISTOR	75Ω, 1/10W	C7147		QEKJ0JM-107	E CAPACITOR	100μF, 6.3V
R7196		NRSA02J-750X	MG RESISTOR	75Ω, 1/10W	C7148		NDC21HJ-330X	CAPACITOR	33pF, 50V
R7197		QRE121J-331Y	RESISTOR	330Ω, 1/2W	C7149		NCB21CK-224X	CAPACITOR	0.22μF, 16V
R7198		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7150		NDC21HJ-101X	CAPACITOR	100pF, 50V
R7199		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7151		NDC21HJ-470X	CAPACITOR	47pF, 50V
R7200		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7152		NCB21CK-105X	CAPACITOR	1μF, 16V
R7201		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7153		NDC21HJ-150X	CAPACITOR	15pF, 50V
R7202		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7157		NCB21CK-224X	CAPACITOR	0.22μF, 16V
R7203		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7158		NCB21HK-332X	CAPACITOR	0.0033μF, 50V
R7204		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7159		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7205		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7160		NCB21HK-473X	CAPACITOR	0.047μF, 50V
R7206		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7161		NCF21AZ-475X	CAPACITOR	4.7μF, 10V
R7207		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C7162		QEPF1CM-106	NP E CAPACITOR	10μF, 16V
R7210		NRSA02J-391X	MG RESISTOR	390Ω, 1/10W	C7163		QEKJ1CM-106	E CAPACITOR	10μF, 16V
R7211		NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C7164		NCF21AZ-475X	CAPACITOR	4.7μF, 10V
R7212		NRSA02J-105X	MG RESISTOR	1MΩ, 1/10W	C7165		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7213		NRSA02J-105X	MG RESISTOR	1MΩ, 1/10W	C7169		NBE21AM-106X	T CAPACITOR	10μF, 10V
R7214		NRSA02J-271X	MG RESISTOR	270Ω, 1/10W	C7170		NCB21HK-103X	CAPACITOR	0.01μF, 50V
R7216		NRSA02J-750X	MG RESISTOR	75Ω, 1/10W	C7171		NDC21HJ-101X	CAPACITOR	100pF, 50V
VR7101		QVP0008-503Z	TRIM RESISTOR, DV AGC		C7173		QEKJ1CM-106	E CAPACITOR	10μF, 16V
C7101		QEKJ0JM-476	E CAPACITOR	47μF, 6.3V	C7174		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7102		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7175		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7103		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7176		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7105		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7178		NBE21AM-106X	T CAPACITOR	10μF, 10V
C7106		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7180		NDC21HJ-101X	CAPACITOR	100pF, 50V
C7107		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7181		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7108		NCB21EK-104X	CAPACITOR	0.1μF, 25V	C7182		QEKJ1AM-476	E CAPACITOR	47μF, 10V
C7109		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7184		QETL1CM-477	E CAPACITOR	470μF, 16V
C7110		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7186		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7111		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7187		NDC21HJ-101X	CAPACITOR	100pF, 50V
C7112		QEKJ0JM-476	E CAPACITOR	47μF, 6.3V	C7188		NCB21HK-223X	CAPACITOR	0.022μF, 50V
C7113		QEKJ1CM-106	E CAPACITOR	10μF, 16V	C7189		NCB21HK-223X	CAPACITOR	0.022μF, 50V
C7115		QEKJ1CM-106	E CAPACITOR	10μF, 16V	C7190		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7116		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7191		NDC21HJ-101X	CAPACITOR	100pF, 50V
C7117		QEKJ0JM-476	E CAPACITOR	47μF, 6.3V	C7192		NCB21HK-223X	CAPACITOR	0.022μF, 50V
C7118		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7194		NCB21EK-104X	CAPACITOR	0.1μF, 25V
C7119		QEKJ1HM-105	E CAPACITOR	1μF, 50V	C7195		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7120		QEKJ0JM-337	E CAPACITOR	330μF, 6.3V	C7196		NDC21HJ-101X	CAPACITOR	100pF, 50V
C7121		QEKJ1HM-105	E CAPACITOR	1μF, 50V	C7197		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7122		QEKJ1HM-225	E CAPACITOR	2.2μF, 50V	C7198		NCB21HK-223X	CAPACITOR	0.022μF, 50V
C7123		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7200		NCB21CK-105X	CAPACITOR	1μF, 16V
C7124		QEKJ1HM-225	E CAPACITOR	2.2μF, 50V	C7202		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7125		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7203		QERF1CM-476	E CAPACITOR	47μF, 16V
C7126		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7204		NCB21HK-103X	CAPACITOR	0.01μF, 50V
C7127		NCB21HK-103X	CAPACITOR	0.01μF, 50V	C7205		QEPF0JM-476	NP E CAPACITOR	47μF, 6.3V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C7206		NCB21HK-103X	CAPACITOR	0.01μF,50V
C7207		QERF0JM-476	E CAPACITOR	47μF,6.3V
C7208		QEKJ0JM-227	E CAPACITOR	220μF,6.3V
C7209		NCB21HK-681X	CAPACITOR	680pF,50V
C7210		NCB21HK-681X	CAPACITOR	680pF,50V
C7211		NCB21HK-681X	CAPACITOR	680pF,50V
C7212		NCB21HK-681X	CAPACITOR	680pF,50V
C7214		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7216		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7218		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7220		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7227		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7228		NCB21HK-102X	CAPACITOR	0.001μF,50V
C7229		QEKJ0JM-337	E CAPACITOR	330μF,6.3V
C7230		NDC21HJ-270X	CAPACITOR	27pF,50V
C7231		NDC21HJ-101X	CAPACITOR	100pF,50V
C7232		NDC21HJ-101X	CAPACITOR	100pF,50V
C7233		NDC21HJ-101X	CAPACITOR	100pF,50V
L7101		QQL29BJ-101Z	COIL	100μH
L7102		QQL29BJ-101Z	COIL	100μH
L7103		NQL045M-4R7X	COIL	4.7μH
L7104		NQL045M-4R7X	COIL	4.7μH
L7105		NQL045M-4R7X	COIL	4.7μH
L7106		NQL045M-4R7X	COIL	4.7μH
L7107		NQL045M-1R0X	COIL	1μH
L7109		NQL085J-220X	COIL	22μH
L7110		NQL085J-820X	COIL	82μH
L7111		NQL085J-270X	COIL	27μH
L7113		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
L7116		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
L7117		NQL045M-4R7X	COIL	4.7μH
L7119		NRSA02J-0R0X	COIL	0Ω, 1/10W
L7121		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
L7122		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
L7124		NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W
L7127		NQL045K-101X	COIL	100μH
L7128		QQL071K-R22Y	COIL	0.22μH
L7129		QQL071J-1R0Y	COIL	1μH
L7130		QQL071J-4R7Y	COIL	4.7μH
L7131		QQL071J-4R7Y	COIL	4.7μH
L7132		QQL071J-4R7Y	COIL	4.7μH
L7133		QQL071J-4R7Y	COIL	4.7μH
L7134		QQL071J-4R7Y	COIL	4.7μH
L7135		QQL071J-4R7Y	COIL	4.7μH
L7136		QQL071J-4R7Y	COIL	4.7μH
L7137		QQL071J-4R7Y	COIL	4.7μH
L7139		QQL071J-4R7Y	COIL	4.7μH
L7140		QQL071J-4R7Y	COIL	4.7μH
L7141		NQL045K-100X	COIL	100μH
S7101		QSW0693-001	SLIDE SWITCH	
ET1		QNZ0431-001Z	EARTH TERMINAL	
OT2		PU59915-105	#500SPACER0.01,C7184	
J7101		QND0009-001	S JACK,S OUT	
J7102		QNZ0418-001	21P CONNECTOR,AV1	
J7103		QNZ0418-001	21P CONNECTOR,AV2	
J7104		QNN0267-001	PIN JACK,A.OUT(L/R)	
WR7002		QUG038-10B2B4	SHI 1 CORE WIRE	
CN7101		QGF1208F1-07	FPC CONNECTOR,(1-7)SVHS	
CN7102		QGA2001F1-09	CONNECTOR,(1-9)DV MAIN	
CN7103		QGB2024J1-11S	CONNECTOR,(1-11)MAIN	
CN7104		QGB2024J1-07S	CONNECTOR,(1-7)MAIN	

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
CN7105		QGB2024J1-12S	CONNECTOR,(1-12)MAIN	
CN7106		QGB2024J1-11S	CONNECTOR,(1-11)MAIN	

AUDIO CONTROL HEAD BOARD ASSEMBLY <12>				
PW1		PB40068A-01	A/C HEAD BOARD ASSY	
CN1		QGD2001F1-07	CONNECTOR,MAIN	

DEMOM BOARD ASSEMBLY <14>				
PW1		LPA10060-01C	DEMOM BOARD ASSY	
IC6701		TDA9874H/V1-X	IC	
Q6701		2SC3936/BC/-X	TRANSISTOR	
D6701		1SV214	DIODE	
R6701		NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R6703		NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
R6705		NRSA02J-100X	MG RESISTOR	10Ω, 1/10W
R6706		NRSA02J-100X	MG RESISTOR	10Ω, 1/10W
R6707		NRSA02J-3R3X	MG RESISTOR	3.3Ω, 1/10W
R6708		NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W
R6709		NRSA02J-393X	MG RESISTOR	39kΩ, 1/10W
R6710		NRSA02J-393X	MG RESISTOR	39kΩ, 1/10W
R6711		NRSA02J-822X	MG RESISTOR	8.2kΩ, 1/10W
R6713		NRSA02J-100X	MG RESISTOR	10Ω, 1/10W
R6715		NRSA02J-100X	MG RESISTOR	10Ω, 1/10W
R6716		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R6717		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R6719		NRSA02J-3R3X	MG RESISTOR	3.3Ω, 1/10W
R6720		QRE141J-100Y	RESISTOR	10Ω, 1/4W
R6721		NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W
R6722		NRSA02J-472X	MG RESISTOR	4.7kΩ, 1/10W
R6723		NRSA02J-470X	MG RESISTOR	47Ω, 1/10W
R6724		NRSA02J-221X	MG RESISTOR	220Ω, 1/10W
R6725		NRSA02J-101X	MG RESISTOR	100Ω, 1/10W
R6726		NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W
C6701		QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C6702		NCB21HK-682X	CAPACITOR	0.0068μF,50V
C6703		QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C6704		NCB21HK-682X	CAPACITOR	0.0068μF,50V
C6705		NCF21CZ-474X	CAPACITOR	0.47μF,16V
C6706		NCF21CZ-474X	CAPACITOR	0.47μF,16V
C6707		NCF21CZ-474X	CAPACITOR	0.47μF,16V
C6710		QEKJ1HM-334	E CAPACITOR	0.33μF,50V
C6711		NCB21EK-333X	CAPACITOR	0.033μF,25V
C6712		NDC21HJ-180X	CAPACITOR	18pF,50V
C6713		NDC21HJ-180X	CAPACITOR	18pF,50V
C6716		NCF21CZ-474X	CAPACITOR	0.47μF,16V
C6718		NCB21EK-224X	CAPACITOR	0.22μF,25V
C6719		NCB21HK-103X	CAPACITOR	0.01μF,50V
C6720		QEKJ1HM-105	E CAPACITOR	1μF,50V
C6722		NCF21CZ-474X	CAPACITOR	0.47μF,16V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C6723		NDC21HJ-101X	CAPACITOR	100pF,50V
C6724		NDC21HJ-101X	CAPACITOR	100pF,50V
C6728		NCB21HK-103X	CAPACITOR	0.01μF,50V
C6729		QEKJ1HM-225	E CAPACITOR	2.2μF,50V
C6730		QEKJ1CM-476	E CAPACITOR	47μF,16V
C6731		NCB21HK-103X	CAPACITOR	0.01μF,50V
C6732		NCB21HK-103X	CAPACITOR	0.01μF,50V
C6733		NCB21HK-222X	CAPACITOR	0.0022μF,50V
C6734		NCB21HK-103X	CAPACITOR	0.01μF,50V
L6701		QQL231J-3R3Y	COIL	3.3μH
L6702		QQL231J-1R0Y	COIL	1μH
L6703		QQL231J-3R3Y	COIL	3.3μH
X6701		QAX0560-001	CRYSTAL RESONATOR	
K6701		NQR0200-003X	FERRITE BEAD	
K6702		NQR0200-003X	FERRITE BEAD	
K6703		NQR0200-003X	FERRITE BEAD	
K6704		NQR0200-003X	FERRITE BEAD	
K6705		NQR0200-003X	FERRITE BEAD	
K6706		NQR0200-003X	FERRITE BEAD	
K6707		NQR0200-003X	FERRITE BEAD	
BK1		LP40077-001A	BRACKET(BOARD)	
CN6701		QGG2502K1-10	HEADER PIN	

DV PRE/REC MDA BOARD ASSEMBLY <16>

PW2	LPA10032-02C2	DV PRE/RRC MDA BOARD ASSY	
IC1601	BA6865KV	IC	
IC1602	BA6417F	IC	
IC9001	AN3731FHQ	IC(DIGITAL)	
Q1601	DTA114EU	TRANSISTOR	
Q1602	2SB1302/T/-X	TRANSISTOR	
Q1603	2SB1302/T/-X	TRANSISTOR	
Q1604	2SB1302/T/-X	TRANSISTOR	
Q1605	2SC4097/QR/-X	TRANSISTOR	
Q9003	2SC4226/4/-X	TRANSISTOR	
Q9005	2SD1979/S/-X	TRANSISTOR	
Q9006	2SD1979/S/-X	TRANSISTOR	
Q9007	2SC4226/4/-X	TRANSISTOR	
D1602	DAP222	DIODE	
D1603	DAP222	DIODE	
D1604	DAP222	DIODE	
R1601	NRSA63J-681X	MG RESISTOR	680Ω,1/16W
R1602	NRSA63J-124X	MG RESISTOR	120kΩ,1/16W
R1603	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R1604	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R1605	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
R1606	NRV142F-R22X	CMF RESISTOR	0.22Ω,1/4W
R1609	NRS12BK-R68W	MG RESISTOR	0.68Ω,1/2W
R1610	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R1611	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R1612	NRSA63J-274X	MG RESISTOR	270kΩ,1/16W
R1613	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
R1614	NRSA63J-154X	MG RESISTOR	150kΩ,1/16W
R1615	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
R1616	NRVA63D-202X	CMF RESISTOR	2kΩ,1/16W
R1617	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
R1618		NRSA63J-203X	MG RESISTOR	20kΩ,1/16W
R1619		NRSA63J-393X	MG RESISTOR	39kΩ,1/16W
R1625		NRSA63J-511X	MG RESISTOR	510Ω,1/16W
R1626		NRSA63J-511X	MG RESISTOR	510Ω,1/16W
R1627		NRSA63J-511X	MG RESISTOR	510Ω,1/16W
R1628		NRSA63J-511X	MG RESISTOR	510Ω,1/16W
R1629		NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
R1630		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1631		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1633		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1634		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1635		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R1636		NRSA63J-823X	MG RESISTOR	82kΩ,1/16W
R1642		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1643		NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R1644		NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R1645		NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R1646		NRSA63J-393X	MG RESISTOR	39kΩ,1/16W
R1647		NRSA02J-1R8X	MG RESISTOR	1.8Ω,1/10W
R1648		NRSA63J-333X	MG RESISTOR	33kΩ,1/16W
R1649		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R1650		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R9003		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R9004		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R9005		NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R9006		NRSA63J-122X	MG RESISTOR	1.2kΩ,1/16W
R9007		NRSA63J-100X	MG RESISTOR	10Ω,1/16W
R9009		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R9011		NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R9012		NRSA63J-123X	MG RESISTOR	12kΩ,1/16W
R9013		NRSA63J-680X	MG RESISTOR	68Ω,1/16W
R9014		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R9015		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R9016		NRSA63J-271X	MG RESISTOR	270Ω,1/16W
R9017		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R9021		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R9022		NRSA63J-181X	MG RESISTOR	180Ω,1/16W
R9023		NRSA63J-181X	MG RESISTOR	180Ω,1/16W
R9024		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R9025		NRSA63J-680X	MG RESISTOR	68Ω,1/16W
R9026		NRSA63J-123X	MG RESISTOR	12kΩ,1/16W
R9027		NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W
R9028		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C1601		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1602		NEA71CM-106X	E CAPACITOR	10μF,16V
C1603		NBE21AM-106X	T CAPACITOR	10μF,10V
C1605		NCB31CK-104X	CAPACITOR	0.1μF,16V
C1606		NCB31HK-152X	CAPACITOR	0.0015μF,50V
C1607		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1608		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1609		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1610		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1611		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1612		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1613		NCB31HK-103X	CAPACITOR	0.01μF,50V
C1614		NEA71CM-106X	E CAPACITOR	10μF,16V
C1615		NCB31CK-104X	CAPACITOR	0.1μF,16V
C1616		NCB31CK-104X	CAPACITOR	0.1μF,16V
C1617		NCB31CK-104X	CAPACITOR	0.1μF,16V
C1618		NCB31EK-223X	CAPACITOR	0.022μF,25V
C1619		NCB31EK-223X	CAPACITOR	0.022μF,25V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION					
C1620			NCB31EK-223X	CAPACITOR 0.022μF,25V	L9004			NQL085J-220X	COIL 22μH					
C1621			NCB21AK-105X	CAPACITOR 1μF,10V	L9005			NQL085J-220X	COIL 22μH					
C1622			NCB31CK-104X	CAPACITOR 0.1μF,16V	LC1601			PELN1148-223X	NOISE FILTER					
C1623			NCB31CK-104X	CAPACITOR 0.1μF,16V	LC1602			PELN1148-223X	NOISE FILTER					
C1625			NCB31CK-104X	CAPACITOR 0.1μF,16V	LC1603			PELN1148-223X	NOISE FILTER					
C1626			NCB31EK-223X	CAPACITOR 0.022μF,25V	LC1605			PELN1148-223X	NOISE FILTER					
C1627			NCB31CK-473X	CAPACITOR 0.047μF,16V	SD1			LP30467-001A	SHIELD COVER,PRE/REC					
C1628			NCB21EK-104X	CAPACITOR 0.1μF,25V	QA1601			BA6254FS	TR ARRAY					
C1631			NCB31CK-104X	CAPACITOR 0.1μF,16V	CN1601			QGA2001F2-05X	CONNECTOR,(1-5)REG					
C1632			NEA70JM-226X	E CAPACITOR 22μF,6.3V	CN1602			QGA1201C2-02X	CONNECTOR,(1-2)DV LOADING MOTOR					
C1635			NEA71CM-106X	E CAPACITOR 10μF,16V	CN1603			QGF0504C1-11X	FPC CONNECTOR,(1-11)DV DRUM MDA					
C1636			NEA71CM-106X	E CAPACITOR 10μF,16V	CN1604			QGF0501F1-18X	FPC CONNECTOR,(1-18)DV CAPSTAN					
C1637			NEA70JM-226X	E CAPACITOR 22μF,6.3V	CN1605			QGA1201C2-04X	CONNECTOR,(1-4)DV ENCODER					
C1639			NCB31HK-103X	CAPACITOR 0.01μF,50V	CN1606			QGF0501F1-20X	FPC CONNECTOR,(1-20)DV MAIN					
C1640			NCB31HK-103X	CAPACITOR 0.01μF,50V	CN1607			QGA1201C2-04X	CONNECTOR,(1-4)DV HOUSING MOTOR					
C1641			NCB31CK-104X	CAPACITOR 0.1μF,16V	CN9001			QGF0501F1-20X	FPC CONNECTOR,(1-20)DV MAIN					
C1644			NCB21EK-104X	CAPACITOR 0.1μF,25V	CN9002			QGF0501F1-10X	FPC CONNECTOR,(1-10)DV VIDEO					
C1646			NCB31CK-104X	CAPACITOR 0.1μF,16V	*****									
C1647			NCB31CK-104X	CAPACITOR 0.1μF,16V										
C1648			NCB21CK-224X	CAPACITOR 0.22μF,16V										
C1649			NCB21CK-224X	CAPACITOR 0.22μF,16V										
C1650			NCB21CK-224X	CAPACITOR 0.22μF,16V										
C1651			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C1652			NEA71CM-106X	E CAPACITOR 10μF,16V										
C9001			NCB31HK-122X	CAPACITOR 0.0012μF,50V										
C9002			NCB21AK-105X	CAPACITOR 1μF,10V										
C9003			NCB31HK-102X	CAPACITOR 0.001μF,50V										
C9004			NCB31HK-103X	CAPACITOR 0.01μF,50V	*****									
C9005			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9006			NDC31HJ-470X	CAPACITOR 47pF,50V										
C9007			NCB31HK-681X	CAPACITOR 680pF,50V										
C9009			NCB31HK-152X	CAPACITOR 0.0015μF,50V										
C9010			NDC31HJ-330X	CAPACITOR 33pF,50V										
C9011			NBE20JM-106X	T CAPACITOR 10μF,6.3V										
C9012			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9013			NEA70JM-476X	E CAPACITOR 47μF,6.3V										
C9014			NCB31HK-103X	CAPACITOR 0.01μF,50V						*****				
C9015			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9016			NDC31HJ-220X	CAPACITOR 22pF,50V										
C9017			NEA71CM-106X	E CAPACITOR 10μF,16V										
C9018			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9019			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9020			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9021			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9022			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9024			NCB31HK-103X	CAPACITOR 0.01μF,50V	*****									
C9027			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9029			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W										
C9030			NEA70GM-107X	E CAPACITOR 100μF,4.0V										
C9031			NBE20JM-106X	T CAPACITOR 10μF,6.3V										
C9032			NBE20JM-106X	T CAPACITOR 10μF,6.3V										
C9033			NCB31HK-103X	CAPACITOR 0.01μF,50V										
C9034			NDC31HJ-330X	CAPACITOR 33pF,50V										
C9035			NBE20JM-106X	T CAPACITOR 10μF,6.3V										
C9036			NCB31HK-103X	CAPACITOR 0.01μF,50V						*****				
C9038			NCB31HK-152X	CAPACITOR 0.0015μF,50V										
C9040			NCB31HK-103X	CAPACITOR 0.01μF,50V										
L1601			NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W										
L9001			NQL045K-470X	COIL 47μH										
L9002			NQL045K-470X	COIL 47μH										
L9003			NQL045K-470X	COIL 47μH										

DISPLAY BOARD ASSEMBLY <21>														
PW5			LPA10029-02C5	DISPLAY BOARD ASSY	*****									
IC1251			UPD16312GB(P)	IC										
			or UPD16312GB(M)	IC										
IC1252			GP1U281X	IR DETECT UNIT										
D1257			RD9.1ES/B2/-T2	ZENER DIODE										
D1258			11ES2	DIODE										
D1261			1N4148M	DIODE										
			or 1SS133	DIODE										
D1262			1N4148M	DIODE										
			or 1SS133	DIODE										
D1263			1N4148M	DIODE	*****									
			or 1SS133	DIODE										
D1271			SLR-342MC3F	LE DIODE										
D1272			SLR-342MC3F	LE DIODE										
R1255			QRE141J-472Y	RESISTOR 4.7kΩ,1/4W										
R1256			QRE141J-102Y	RESISTOR 1kΩ,1/4W										
R1257			QRE141J-471Y	RESISTOR 470Ω,1/4W										
R1258			QRE141J-563Y	RESISTOR 56kΩ,1/4W										
R1259			QRE141J-103Y	RESISTOR 10kΩ,1/4W										
R1260			QRE141J-103Y	RESISTOR 10kΩ,1/4W										
R1265			QRE141J-221Y	RESISTOR 220Ω,1/4W	*****									
R1266			QRE141J-221Y	RESISTOR 220Ω,1/4W										
R1268			QRE141J-331Y	RESISTOR 330Ω,1/4W										
R1269			QRE141J-331Y	RESISTOR 330Ω,1/4W										
R1278			QRE141J-0R0Y	RESISTOR 0Ω,1/4W										
C1251			QERF1CM-476	E CAPACITOR 47μF,16V										
C1252			QDYB1CM-103Y	CAPACITOR 0.01μF,16V										
C1253			QETN1CM-227	E CAPACITOR 220μF,16V										
C1254			QCSB1HJ-470	CAPACITOR 47pF,50V										
C1255			QCSB1HJ-330	CAPACITOR 33pF,50V										
C1256			QEKJ1HM-106	E CAPACITOR 10μF,50V	*****									
C1257			QCB1HJ-102	CAPACITOR 0.001μF,50V										
L1251			QQL29BJ-331Z	COIL 330μH										
S1251			QSW0381-001Z	TACT SWITCH,POWER										
S1252			QSW0381-001Z	TACT SWITCH,EJECT)										
S1253			QSW0381-001Z	TACT SWITCH,DV SERE CT										

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
S1254		QSW0381-001Z	TACT SWITCH,DV>>
S1255		QSW0381-001Z	TACT SWITCH,ALL DUB
S1256		QSW0381-001Z	TACT SWITCH,<<VHS
DI1251		QLF0031-002	FL TUBE
HD1		PQM30038-1-2	LED HOLDER,D1271
HD2		PQM30038-1-2	LED HOLDER,D1272
HD3		PQ34949	FDP HOLDER(L),DI1251
HD4		PQ34950	FDP HOLDER(R),DI1251
FW1251		QUM032-07A4A4	PARA RIBON WIRE,LED2
CN1252		QGF1208C1-15	FPC CONNECTOR,(1-15)SW/DISPLAY

DISPLAY/SW BOARD ASSEMBLY <28>

PW1	LPA10029-02C1	DISPLAY/SW BOARD ASSY	
IC1201	UPD16312GB(P)	IC	
	or UPD16312GB(M)	IC	
D1201	1N4148M	DIODE	
	or 1SS133	DIODE	
D1202	1N4148M	DIODE	
	or 1SS133	DIODE	
D1203	1N4148M	DIODE	
	or 1SS133	DIODE	
D1204	1N4148M	DIODE	
	or 1SS133	DIODE	
D1205	1N4148M	DIODE	
	or 1SS133	DIODE	
D1207	RD9.1ES/B2/-T2	ZENER DIODE	
D1208	11ES2	DIODE	
D1211	1N4148M	DIODE	
	or 1SS133	DIODE	
D1212	1N4148M	DIODE	
	or 1SS133	DIODE	
D1213	1N4148M	DIODE	
	or 1SS133	DIODE	
D1216	1N4148M	DIODE	
	or 1SS133	DIODE	
D1217	1N4148M	DIODE	
	or 1SS133	DIODE	
R1201	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1202	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1203	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1204	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1205	QRE141J-472Y	RESISTOR	4.7kΩ,1/4W
R1206	QRE141J-102Y	RESISTOR	1kΩ,1/4W
R1207	QRE141J-471Y	RESISTOR	470Ω,1/4W
R1208	QRE141J-563Y	RESISTOR	56kΩ,1/4W
R1209	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1210	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1211	QRE141J-103Y	RESISTOR	10kΩ,1/4W
R1212	QRE141J-472Y	RESISTOR	4.7kΩ,1/4W
R1215	QRE141J-221Y	RESISTOR	220Ω,1/4W
R1216	QRE141J-221Y	RESISTOR	220Ω,1/4W
R1218	QRE141J-331Y	RESISTOR	330Ω,1/4W
R1219	QRE141J-331Y	RESISTOR	330Ω,1/4W
R1221	QRE141J-333Y	RESISTOR	33kΩ,1/4W
R1222	QRE141J-333Y	RESISTOR	33kΩ,1/4W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
R1223		QRE141J-333Y	RESISTOR	33kΩ,1/4W
R1224		QRE141J-333Y	RESISTOR	33kΩ,1/4W
R1228		QRE141J-0R0Y	RESISTOR	0Ω,1/4W
R1229		QRE141J-0R0Y	RESISTOR	0Ω,1/4W
R1230		QRE141J-0R0Y	RESISTOR	0Ω,1/4W
R1231		QRE141J-750Y	RESISTOR	75Ω,1/4W
R1232		QRE141J-0R0Y	RESISTOR	0Ω,1/4W
R1233		QRE141J-750Y	RESISTOR	75Ω,1/4W
C1201		QETN1AM-227	E CAPACITOR	220μF,10V
C1202		QDYB1CM-103Y	CAPACITOR	0.01μF,16V
C1203		QDYB1CM-103Y	CAPACITOR	0.01μF,16V
C1204		QCSB1HJ-470	CAPACITOR	47pF,50V
C1205		QCSB1HJ-330	CAPACITOR	33pF,50V
C1206		QEKJ1HM-106	E CAPACITOR	10μF,50V
C1207		QCB1HJ-102	CAPACITOR	0.001μF,50V
C1231		QDYB1CM-103Y	CAPACITOR	0.01μF,16V
C1232		QCB1HJ-681	CAPACITOR	680pF,50V
C1234		QCB1HJ-681	CAPACITOR	680pF,50V
L1201		QQL29BJ-331Z	COIL	330μH
L1211		QRE141J-101Y	RESISTOR	100Ω,1/4W
L1212		QRE141J-101Y	RESISTOR	100Ω,1/4W
S1201		QSW0381-001Z	TACT SWITCH,SP/LP	
S1202		QSW0381-001Z	TACT SWITCH,REC	
S1203		QSW0381-001Z	TACT SWITCH,PAUSE	
S1204		QSW0381-001Z	TACT SWITCH,CH-	
S1205		QSW0381-001Z	TACT SWITCH,STOP	
S1206		QSW0381-001Z	TACT SWITCH,REW	
S1207		QSW0381-001Z	TACT SWITCH,FF	
S1208		QSW0381-001Z	TACT SWITCH,CH+	
S1209		QSW0381-001Z	TACT SWITCH,PLAY	
S1210		QSW0381-001Z	TACT SWITCH,EXT TIMER STBY	
DI1201		QLF0031-002	FL TUBE	
HD1		PQM30038-1-2	LED HOLDER,D1221	
HD2		PQM30038-1-2	LED HOLDER,D1222	
HD3		PQ34949	FDP HOLDER(L),DI1201	
HD4		PQ34950	FDP HOLDER(R),DI1201	
FW1201		QUM032-07A4A4	PARA RIBON WIRE,LED1	
FW1202		QUM033-07A4A4	PARA RIBON WIRE,SW	
J1201		QND0010-001	S JACK	
J1202		PEMC1126-04	PIN JACK,VIDEO IN	
J1203		PEMC0922-02	PIN JACK(SW),AUDIO(R)	
J1204		PEMC0922-03	PIN JACK(SW),AUDIO(L)	
J1205		PU60659	MINI JACK,R,PAUSE	
CN1201		QGF1208F1-11	FPC CONNECTOR,(1-11)MAIN	
CN1202		QGF1208C1-15	FPC CONNECTOR,(1-15)DISPLAY	
CN1211		QGF1208F1-10	FPC CONNECTOR,(1-10)MAIN	

SW BOARD ASSEMBLY <36>

PW2	LPA10029-02C2	SW BOARD ASSY
S1211	QSW0381-001Z	TACT SWITCH,EJECT VHS
S1212	QSW0381-001Z	TACT SWITCH,VHS SELECT

△ REF No. PART No. PART NAME, DESCRIPTION

LED1 BOARD ASSEMBLY <46>

PW3	LPA10029-02C3	LED1 BOARD ASSY
D1231	SLA-20040-A1	LE DIODE

DV MAIN BOARD ASSEMBLY <50>

PW1	LPA10032-02C1	MAIN BOARD ASSY
IC1001	MN1021617FH	IC
	or MN102F1617HL-61	IC
IC1002	UPD6461GS-946-X	IC
IC1003	X25057M8-2.7-X	IC
IC1004	RS5C314	IC
IC1005	S-80823ANNP-W	IC
IC1007	TC7ST32F	IC(DIGITAL)
IC1012	TC7W14F	IC(DIGITAL)
IC1401	M31020MA-153VP	IC
IC1402	TC7W14F	IC(DIGITAL)
IC2101	AK4518-VF-X	IC
	or AK4512-VF-X	IC
IC2102	NJM2112V	IC
IC3001	MN67373	IC(DIGITAL)
IC3002	MN47V07AF	IC
IC3003	M65500FP	IC(DIGITAL)
IC3004	MN41V4260TT-A07	IC(DIGITAL)
	or GLT441L16-40TC	IC
IC3005	AD9057BRS-60-X	IC
IC3201	BH7086KV	IC(DIGITAL)
IC3202	T9P90EF	IC
IC3203	M52387FP	IC
IC3204	M52684AFP-XE	IC
IC3205	TC7SH08F	IC(DIGITAL)
IC3206	TC7SH00F	IC
IC3302	TC7S04F	IC(DIGITAL)
IC3303	TC7SH08F	IC(DIGITAL)
IC3351	UPC1862GS	IC
IC3401	JCP8013	IC
IC3402	TC4W53F	IC
IC3403	TC4W53F	IC
IC3404	TC4W53F	IC
IC3405	TC4W53F	IC
IC3406	TC7ST32F	IC(DIGITAL)
IC3407	TC4W53F	IC
IC3408	TC4W53F	IC
IC3501	AN3741FAP-A	IC(DIGITAL)
IC3503	MB88345PF	IC
IC3701	NJM2538V	IC
IC3702	UPC29L03T	IC
IC4301	JCY0112-2	IC
IC4302	TMS4C2973-28-X	IC
IC4303	TC7SH04F	IC(DIGITAL)
IC4304	TC7SH04F	IC(DIGITAL)
IC4305	TC7SH04F	IC(DIGITAL)
IC4306	TC7SH04F	IC(DIGITAL)

△ REF No. PART No. PART NAME, DESCRIPTION

IC8001	TSB13LV11PBW	IC(DIGITAL)
Q1001	2SC4617/RS-X	TRANSISTOR
Q1002	2SB1302/ST-X	TRANSISTOR
Q1003	DTC144EE	TRANSISTOR
Q1004	2SB1302/ST-X	TRANSISTOR
Q1005	DTC144EE	TRANSISTOR
Q1006	2SB1302/ST-X	TRANSISTOR
Q1007	DTC144EE	TRANSISTOR
Q1009	2SC4617/RS-X	TRANSISTOR
△ Q1010	2SB1302/ST-X	TRANSISTOR
Q1011	DTC144EE	TRANSISTOR
Q1012	2SB1302/ST-X	TRANSISTOR
Q1013	DTC144EE	TRANSISTOR
Q1401	DTA114EE	TRANSISTOR
Q1402	UMG3N	TRANSISTOR
Q1403	UMC3N	TRANSISTOR
Q1404	UMC3N	TRANSISTOR
Q1405	2SB1234	TRANSISTOR
Q2102	2SC4617/RS-X	TRANSISTOR
Q3201	2SC4081/RS-X	TRANSISTOR
Q3202	2SC4081/RS-X	TRANSISTOR
Q3205	2SC4081/RS-X	TRANSISTOR
Q3301	2SC4081/RS-X	TRANSISTOR
Q3302	2SA1576A/RS-X	TRANSISTOR
Q3303	2SC4081/RS-X	TRANSISTOR
Q3304	2SA1576A/RS-X	TRANSISTOR
Q3307	2SC4081/RS-X	TRANSISTOR
Q3308	2SA1576A/RS-X	TRANSISTOR
Q3401	2SC4081/RS-X	TRANSISTOR
Q3402	2SC4081/RS-X	TRANSISTOR
Q3403	2SA1576A/RS-X	TRANSISTOR
Q3404	2SA1576A/RS-X	TRANSISTOR
Q3405	2SA1576A/RS-X	TRANSISTOR
Q3407	2SC4081/RS-X	TRANSISTOR
Q3408	2SC4081/RS-X	TRANSISTOR
Q3409	2SA1576A/RS-X	TRANSISTOR
Q3412	2SA1576A/RS-X	TRANSISTOR
Q3413	2SA1576A/RS-X	TRANSISTOR
Q3414	2SC4081/RS-X	TRANSISTOR
Q3415	2SC4081/RS-X	TRANSISTOR
Q3416	2SA1576A/RS-X	TRANSISTOR
Q3417	2SC4081/RS-X	TRANSISTOR
Q3420	2SC4081/RS-X	TRANSISTOR
Q3421	2SA1576A/RS-X	TRANSISTOR
Q3422	2SA1576A/RS-X	TRANSISTOR
Q3501	2SC4226/4I-X	TRANSISTOR
Q3502	DTC124XE	TRANSISTOR
Q3503	2SC4617/QRS-X	TRANSISTOR
Q3504	2SA1774/QRS-X	TRANSISTOR
Q3511	2SA1774/QRS-X	TRANSISTOR
Q3512	DTC144EE	TRANSISTOR
Q3513	UMZ1N	PAIR TRANSISTOR
Q3701	DTC144EE	TRANSISTOR
Q4301	2SA1576A/RS-X	TRANSISTOR
Q4302	2SA1576A/RS-X	TRANSISTOR
Q4303	DTC144WU	TRANSISTOR
Q4304	DTC144WU	TRANSISTOR
D1001	SB007-03Q-X	SB DIODE
D1002	SB007-03Q-X	SB DIODE
D3201	1SS355	DIODE
R1001	NRSA63J-0R0X	MG RESISTOR

0Ω, 1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R1003		NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R1004		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1007		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1010		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1014		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1015		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1016		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1017		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1018		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1020		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1022		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1025		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R1027		NRSA63J-223X	MG RESISTOR 22kΩ,1/16W
R1028		NRSA63J-333X	MG RESISTOR 33kΩ,1/16W
R1029		NRSA63J-473X	MG RESISTOR 47kΩ,1/16W
R1030		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1031		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1032		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1033		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1034		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1035		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W
R1037		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1038		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1040		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1041		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R1042		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1043		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1044		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1045		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R1046		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1047		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W
R1048		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1050		NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R1051		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1052		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1053		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1054		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1062		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1064		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1402		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1403		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R1404		NRSA63J-220X	MG RESISTOR 22Ω,1/16W
R1405		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1406		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1407		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1408		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1409		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1410		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1411		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1412		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1413		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1414		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1415		NRSA63J-223X	MG RESISTOR 22kΩ,1/16W
R1416		NRSA63J-153X	MG RESISTOR 15kΩ,1/16W
R1417		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1418		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1419		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1420		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1421		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1422		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R1423		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R1424		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R1425		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1426		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1427		NRSA63J-683X	MG RESISTOR 68kΩ,1/16W
R1428		NRSA63J-683X	MG RESISTOR 68kΩ,1/16W
R1429		NRSA63J-330X	MG RESISTOR 33Ω,1/16W
R1430		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R1431		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1432		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1433		NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R1434		NRSA63J-561X	MG RESISTOR 560Ω,1/16W
R1438		NRSA63J-561X	MG RESISTOR 560Ω,1/16W
R1439		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R1440		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1450		NRSA02J-560X	MG RESISTOR 56Ω,1/10W
R1451		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R2101		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R2102		NRSA63J-100X	MG RESISTOR 10Ω,1/16W
R2103		NRSA63J-106X	MG RESISTOR 10MΩ,1/16W
R2104		NRSA63J-106X	MG RESISTOR 10MΩ,1/16W
R2105		NRSA63J-106X	MG RESISTOR 10MΩ,1/16W
R2106		NRSA63J-106X	MG RESISTOR 10MΩ,1/16W
R2107		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R2108		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R2109		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R2110		NRSA63J-682X	MG RESISTOR 6.8kΩ,1/16W
R2111		NRSA63J-123X	MG RESISTOR 12kΩ,1/16W
R2112		NRSA63J-912X	MG RESISTOR 9.1kΩ,1/16W
R2114		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2115		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R2116		NRSA63J-561X	MG RESISTOR 560Ω,1/16W
R2117		NRSA63J-912X	MG RESISTOR 9.1kΩ,1/16W
R2118		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2119		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2121		NRSA63J-561X	MG RESISTOR 560Ω,1/16W
R2123		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2124		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2125		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2126		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2127		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R2128		NRSA63J-224X	MG RESISTOR 220kΩ,1/16W
R2130		NRSA63J-224X	MG RESISTOR 220kΩ,1/16W
R2134		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R2135		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3001		NRSA63J-271X	MG RESISTOR 270Ω,1/16W
R3002		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R3003		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3004		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3005		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R3006		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3007		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3008		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R3009		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R3010		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3011		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3012		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3013		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3014		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3015		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3016		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3017		NRSA63J-682X	MG RESISTOR 6.8kΩ,1/16W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R3018			NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R3262			NRSA63J-273X	MG RESISTOR 27kΩ,1/16W
R3019			NRSA63J-224X	MG RESISTOR 220kΩ,1/16W	R3263			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W
R3020			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3264			NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R3021			NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R3265			NRSA63J-154X	MG RESISTOR 150kΩ,1/16W
R3022			NRSA63J-124X	MG RESISTOR 120kΩ,1/16W	R3266			NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R3023			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3267			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3201			NRSA63J-473X	MG RESISTOR 47kΩ,1/16W	R3268			NRSA63J-271X	MG RESISTOR 270Ω,1/16W
R3202			NRSA63J-473X	MG RESISTOR 47kΩ,1/16W	R3269			NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R3203			NRSA63J-113X	MG RESISTOR 11kΩ,1/16W	R3270			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3204			NRSA63J-912X	MG RESISTOR 9.1kΩ,1/16W	R3271			NRSA63J-473X	MG RESISTOR 47kΩ,1/16W
R3205			NRSA63J-121X	MG RESISTOR 120Ω,1/16W	R3272			NRSA63J-273X	MG RESISTOR 27kΩ,1/16W
R3206			NRSA63J-682X	MG RESISTOR 6.8kΩ,1/16W	R3273			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3207			NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W	R3274			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3208			NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R3275			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3209			NRSA63J-563X	MG RESISTOR 56kΩ,1/16W	R3276			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3210			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3277			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3211			NRSA63J-183X	MG RESISTOR 18kΩ,1/16W	R3278			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3212			NRSA63J-391X	MG RESISTOR 390Ω,1/16W	R3279			NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3213			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3280			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3214			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3281			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3215			NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W	R3282			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3216			NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R3283			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3217			NRSA63J-123X	MG RESISTOR 12kΩ,1/16W	R3284			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3218			NRSA63J-123X	MG RESISTOR 12kΩ,1/16W	R3285			NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R3219			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R3286			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3220			NRSA63J-153X	MG RESISTOR 15kΩ,1/16W	R3287			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3221			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R3288			NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R3222			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3289			NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3223			NRSA63J-105X	MG RESISTOR 1MΩ,1/16W	R3290			NRSA63J-564X	MG RESISTOR 560kΩ,1/16W
R3224			NRSA63J-105X	MG RESISTOR 1MΩ,1/16W	R3301			NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3225			NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W	R3302			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3226			NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W	R3305			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3227			NRSA63J-151X	MG RESISTOR 150Ω,1/16W	R3306			NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3228			NRSA63J-105X	MG RESISTOR 1MΩ,1/16W	R3307			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3229			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R3308			NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3230			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3309			NRSA63J-121X	MG RESISTOR 120Ω,1/16W
R3231			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3310			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3232			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3315			NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R3233			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3316			NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R3234			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3317			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3235			NRSA63J-183X	MG RESISTOR 18kΩ,1/16W	R3318			NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3236			NRSA63J-183X	MG RESISTOR 18kΩ,1/16W	R3322			NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3237			NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R3324			NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R3238			NRSA63J-823X	MG RESISTOR 82kΩ,1/16W	R3325			NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3241			NRSA63J-333X	MG RESISTOR 33kΩ,1/16W	R3353			NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R3242			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R3354			NRSA63J-332X	MG RESISTOR 3.3kΩ,1/16W
R3243			NRSA63J-331X	MG RESISTOR 330Ω,1/16W	R3355			NRSA63J-511X	MG RESISTOR 510Ω,1/16W
R3245			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3356			NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3247			NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R3357			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3250			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3363			NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3251			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3364			NRSA63J-272X	MG RESISTOR 2.7kΩ,1/16W
R3252			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3365			NRSA63J-271X	MG RESISTOR 270Ω,1/16W
R3253			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3366			NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3254			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3367			NRSA63J-822X	MG RESISTOR 8.2kΩ,1/16W
R3255			NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R3368			NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R3256			NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W	R3369			NRSA63J-473X	MG RESISTOR 47kΩ,1/16W
R3257			NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R3370			NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3258			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R3371			NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R3259			NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R3372			NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3260			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3401			NRSA63J-333X	MG RESISTOR 33kΩ,1/16W
R3261			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W	R3402			NRSA63J-223X	MG RESISTOR 22kΩ,1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R3403		NRSA63J-273X	MG RESISTOR 27kΩ,1/16W
R3404		NRSA63J-272X	MG RESISTOR 2.7kΩ,1/16W
R3405		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3406		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R3407		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3408		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3409		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3410		NRSA63J-330X	MG RESISTOR 33Ω,1/16W
R3411		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3412		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3413		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W
R3414		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3415		NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R3416		NRSA63J-272X	MG RESISTOR 2.7kΩ,1/16W
R3417		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R3420		NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R3421		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R3422		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R3423		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3430		NRSA63J-100X	MG RESISTOR 10Ω,1/16W
R3431		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3432		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3433		NRSA63J-153X	MG RESISTOR 15kΩ,1/16W
R3434		NRSA63J-153X	MG RESISTOR 15kΩ,1/16W
R3435		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3436		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3437		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3438		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W
R3439		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3440		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3441		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R3442		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3443		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R3444		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3445		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3446		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R3447		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3448		NRSA63J-271X	MG RESISTOR 270Ω,1/16W
R3449		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3451		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3454		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3456		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3459		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3460		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3462		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3464		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3466		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3467		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3468		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3471		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3473		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3475		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3476		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3477		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3485		NRSA63J-123X	MG RESISTOR 12kΩ,1/16W
R3486		NRSA63J-271X	MG RESISTOR 270Ω,1/16W
R3488		NRSA63J-822X	MG RESISTOR 8.2kΩ,1/16W
R3491		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3502		NRSA63J-181X	MG RESISTOR 180Ω,1/16W
R3503		NRSA63J-301X	MG RESISTOR 300Ω,1/16W
R3504		NRSA63J-391X	MG RESISTOR 390Ω,1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R3505		NRSA63J-152X	MG RESISTOR 1.5kΩ,1/16W
R3507		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3508		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3509		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3510		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3511		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3513		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3514		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3515		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3516		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W
R3517		NRSA63J-683X	MG RESISTOR 68kΩ,1/16W
R3518		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R3519		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W
R3520		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3521		NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R3522		NRSA63J-121X	MG RESISTOR 120Ω,1/16W
R3523		NRSA63J-121X	MG RESISTOR 120Ω,1/16W
R3524		NRSA63J-121X	MG RESISTOR 120Ω,1/16W
R3525		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3526		NRSA63J-822X	MG RESISTOR 8.2kΩ,1/16W
R3527		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R3528		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R3529		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W
R3530		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3533		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R3534		NRSA63J-563X	MG RESISTOR 56kΩ,1/16W
R3535		NRSA63J-564X	MG RESISTOR 560kΩ,1/16W
R3536		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3537		NRSA63J-561X	MG RESISTOR 560Ω,1/16W
R3538		NRSA63J-224X	MG RESISTOR 220kΩ,1/16W
R3539		NRSA63J-680X	MG RESISTOR 68Ω,1/16W
R3540		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3541		NRSA63J-392X	MG RESISTOR 3.9kΩ,1/16W
R3564		NRSA63J-124X	MG RESISTOR 120kΩ,1/16W
R3565		NRSA63J-563X	MG RESISTOR 56kΩ,1/16W
R3566		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R3567		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3568		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R3701		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R3702		NRSA63J-680X	MG RESISTOR 68Ω,1/16W
R3703		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R3704		NRSA63J-224X	MG RESISTOR 220kΩ,1/16W
R3705		NRSA63J-680X	MG RESISTOR 68Ω,1/16W
R3706		NRSA63J-225X	MG RESISTOR 2.2MΩ,1/16W
R3707		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R3708		NRSA63J-121X	MG RESISTOR 120Ω,1/16W
R3717		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R3718		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R4301		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R4302		NRSA63J-220X	MG RESISTOR 22Ω,1/16W
R4303		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R4321		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R4322		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R4323		NRSA63J-222X	MG RESISTOR 2.2kΩ,1/16W
R4324		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R4325		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R4326		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R4327		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W
R4328		NRSA63J-100X	MG RESISTOR 10Ω,1/16W
R4329		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R4331		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
R4332			NRSA63J-102X	MG RESISTOR	1kΩ, 1/16W	C1030			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8001			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1035			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
R8002			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1036			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8003			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1101			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8004			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1105			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8005			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1106			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8006			NRSA63J-104X	MG RESISTOR	100kΩ, 1/16W	C1107			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8008			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1108			NCB31HK-103X	CAPACITOR	0.01μF, 50V
R8009			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1401			NEA70JM-476X	E CAPACITOR	47μF, 6.3V
R8010			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1402			NEA70JM-476X	E CAPACITOR	47μF, 6.3V
R8011			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1403			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8012			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1404			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8013			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1405			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8015			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C1406			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8016			NRSA63J-270X	MG RESISTOR	27Ω, 1/16W	C1407			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8017			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1408			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8018			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1409			NDC31HJ-120X	CAPACITOR	12pF, 50V
R8019			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1410			NDC31HJ-120X	CAPACITOR	12pF, 50V
R8023			NRSA63J-394X	MG RESISTOR	390kΩ, 1/16W	C1411			NCB31CK-223X	CAPACITOR	0.022μF, 16V
R8024			NRSA63J-332X	MG RESISTOR	3.3kΩ, 1/16W	C1412			NCB31CK-223X	CAPACITOR	0.022μF, 16V
R8025			NRSA63J-272X	MG RESISTOR	2.7kΩ, 1/16W	C1413			NCB31CK-223X	CAPACITOR	0.022μF, 16V
R8026			NRSA63J-103X	MG RESISTOR	10kΩ, 1/16W	C1414			NCB31CK-223X	CAPACITOR	0.022μF, 16V
R8031			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C1415			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
R8032			NRVA63D-512X	CMF RESISTOR	5.1kΩ, 1/16W	C1416			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
R8033			NRVA63D-560X	CMF RESISTOR	56Ω, 1/16W	C2101			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
R8034			NRVA63D-560X	CMF RESISTOR	56Ω, 1/16W	C2102			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
R8035			NRVA63D-560X	CMF RESISTOR	56Ω, 1/16W	C2103			NCB31CK-104X	CAPACITOR	0.1μF, 16V
R8036			NRVA63D-560X	CMF RESISTOR	56Ω, 1/16W	C2104			NCB31CK-104X	CAPACITOR	0.1μF, 16V
R8037			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C2105			NBE20JM-475X	T CAPACITOR	4.7μF, 6.3V
R8038			NRSA63J-105X	MG RESISTOR	1MΩ, 1/16W	C2106			NCB31CK-104X	CAPACITOR	0.1μF, 16V
RA1001			NRZ0040-102X	NET RESISTOR		C2107			NCF21CZ-105X	CAPACITOR	1μF, 16V
RA1002			NRZ0040-102X	NET RESISTOR		C2108			NCF21CZ-105X	CAPACITOR	1μF, 16V
RA1003			NRZ0040-104X	NET RESISTOR		C2109			NCB31CK-104X	CAPACITOR	0.1μF, 16V
RA1004			NRZ0040-104X	NET RESISTOR		C2110			NCB31HK-222X	CAPACITOR	0.0022μF, 50V
RA1005			NRZ0040-102X	NET RESISTOR		C2111			NCB31HK-222X	CAPACITOR	0.0022μF, 50V
RA1401			NRZ0040-102X	NET RESISTOR		C2112			NBE20JM-475X	T CAPACITOR	4.7μF, 6.3V
RA1402			NRZ0040-102X	NET RESISTOR		C2113			NBE20JM-475X	T CAPACITOR	4.7μF, 6.3V
RA1403			NRZ0040-473X	NET RESISTOR		C2114			NCB31CK-104X	CAPACITOR	0.1μF, 16V
RA4301			NRZ0040-101X	NET RESISTOR		C2115			NCB31CK-104X	CAPACITOR	0.1μF, 16V
RA4302			NRZ0040-101X	NET RESISTOR		C2116			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
RA4303			NRZ0040-101X	NET RESISTOR		C2117			NCB31CK-104X	CAPACITOR	0.1μF, 16V
C1003			NCF31CZ-104X	CAPACITOR	0.1μF, 16V	C2118			NCB31CK-104X	CAPACITOR	0.1μF, 16V
C1005			NDC31HJ-330X	CAPACITOR	33pF, 50V	C2119			NEA70JM-226X	E CAPACITOR	22μF, 6.3V
C1006			NDC31HJ-150X	CAPACITOR	15pF, 50V	C2120			NBE20JM-106X	T CAPACITOR	10μF, 6.3V
C1008			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C2122			NBE20JM-106X	T CAPACITOR	10μF, 6.3V
C1009			NEA70JM-226X	E CAPACITOR	22μF, 6.3V	C2124			NCB31HK-221X	CAPACITOR	220pF, 50V
C1010			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C2125			NCB31HK-152X	CAPACITOR	0.0015μF, 50V
C1012			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C2126			NCB31HK-221X	CAPACITOR	220pF, 50V
C1013			NDC31HJ-270X	CAPACITOR	27pF, 50V	C2127			NCB31HK-472X	CAPACITOR	0.0047μF, 50V
C1014			NDC31HJ-180X	CAPACITOR	18pF, 50V	C2128			NCB31HK-472X	CAPACITOR	0.0047μF, 50V
C1015			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C2129			NBE40JM-476X	T CAPACITOR	47μF, 6.3V
C1017			NCF31AZ-105X	CAPACITOR	1μF, 10V	C2130			NBE40JM-476X	T CAPACITOR	47μF, 6.3V
C1019			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C2131			NCB31HK-152X	CAPACITOR	0.0015μF, 50V
C1021			NCF31CZ-104X	CAPACITOR	0.1μF, 16V	C3001			NDC31HJ-5R0X	CAPACITOR	5pF, 50V
C1022			NCF31CZ-104X	CAPACITOR	0.1μF, 16V	C3002			NDC31HJ-5R0X	CAPACITOR	5pF, 50V
C1023			NEA70JM-107X	E CAPACITOR	100μF, 6.3V	C3003			NCB31HK-103X	CAPACITOR	0.01μF, 50V
C1024			NEA70JM-226X	E CAPACITOR	22μF, 6.3V	C3004			NCB31HK-103X	CAPACITOR	0.01μF, 50V
C1025			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C3005			NCB31HK-103X	CAPACITOR	0.01μF, 50V
C1026			NEA70JM-107X	E CAPACITOR	100μF, 6.3V	C3006			NCF31CZ-104X	CAPACITOR	0.1μF, 16V
C1027			NEA70JM-226X	E CAPACITOR	22μF, 6.3V	C3007			NCB31HK-103X	CAPACITOR	0.01μF, 50V
C1028			NCB31HK-103X	CAPACITOR	0.01μF, 50V	C3008			NCB31HK-103X	CAPACITOR	0.01μF, 50V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C3009		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3231		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3010		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3232		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3011		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3233		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3012		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3234		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3013		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3235		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3014		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3236		NDC31HJ-150X	CAPACITOR	15pF,50V
C3016		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3238		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3017		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3239		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3018		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3240		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3019		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3241		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3020		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3242		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3021		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3243		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3023		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3244		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3024		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3245		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3025		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3246		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3026		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3247		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3027		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3249		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3028		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3250		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3029		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3251		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3030		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3252		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3031		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3253		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3032		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3254		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3033		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3255		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3034		NEA70JM-476X	E CAPACITOR	47μF,6.3V	C3256		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3035		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3257		NDC31HJ-101X	CAPACITOR	100pF,50V
C3036		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3258		NCB21CK-474X	CAPACITOR	0.47μF,16V
C3037		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3259		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3038		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3260		NCB31CK-473X	CAPACITOR	0.047μF,16V
C3039		NCB31HK-103X	CAPACITOR	0.01μF,50V	C3261		NCB21CK-224X	CAPACITOR	0.22μF,16V
C3040		NCF31CZ-104X	CAPACITOR	0.1μF,16V	C3262		NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3041		NDC31HJ-270X	CAPACITOR	27pF,50V	C3263		NBP21VM-684X	T CAPACITOR	0.68μF,35V
C3201		NCF21CZ-105X	CAPACITOR	1μF,16V	C3264		NCB31HK-681X	CAPACITOR	680pF,50V
C3202		NDC31HJ-101X	CAPACITOR	100pF,50V	C3265		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3203		NCF21CZ-105X	CAPACITOR	1μF,16V	C3266		NDC31HJ-270X	CAPACITOR	27pF,50V
C3204		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3267		NCB31CK-273X	CAPACITOR	0.027μF,16V
C3205		NDC31HJ-101X	CAPACITOR	100pF,50V	C3268		NCF21CZ-105X	CAPACITOR	1μF,16V
C3206		NDC31HJ-100X	CAPACITOR	10pF,50V	C3269		NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3207		NDC31HJ-150X	CAPACITOR	15pF,50V	C3272		NCB31HK-152X	CAPACITOR	0.0015μF,50V
C3208		NCF21CZ-105X	CAPACITOR	1μF,16V	C3273		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3209		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3274		NCB31HK-102X	CAPACITOR	0.001μF,50V
C3210		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3275		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3211		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3276		NEA70JM-476X	E CAPACITOR	47μF,6.3V
C3212		NCB31HK-561X	CAPACITOR	560pF,50V	C3277		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3213		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3278		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3214		NDC31HJ-5R0X	CAPACITOR	5pF,50V	C3279		NBE20JM-106X	T CAPACITOR	10μF,6.3V
C3215		NDC31HJ-100X	CAPACITOR	10pF,50V	C3280		NBE21AM-335X	T CAPACITOR	3.3μF,10V
C3216		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3281		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3217		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3282		NEA70JM-476X	E CAPACITOR	47μF,6.3V
C3218		NEA70JM-226X	E CAPACITOR	22μF,6.3V	C3283		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3219		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3284		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3220		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3285		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3221		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3287		NCF21CZ-105X	CAPACITOR	1μF,16V
C3222		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3288		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3223		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3289		NCB31EK-103X	CAPACITOR	0.01μF,25V
C3224		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3290		NCF21CZ-105X	CAPACITOR	1μF,16V
C3225		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3291		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3226		NCB31EK-103X	CAPACITOR	0.01μF,25V	C3292		NCF21CZ-105X	CAPACITOR	1μF,16V
C3227		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3293		NCF21CZ-105X	CAPACITOR	1μF,16V
C3228		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3294		NBP21CM-225X	T CAPACITOR	2.2μF,16V
C3229		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3295		NCB31CK-104X	CAPACITOR	0.1μF,16V
C3230		NCB31CK-104X	CAPACITOR	0.1μF,16V	C3296		NCB31EK-103X	CAPACITOR	0.01μF,25V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
C3297			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3432			NCB31CK-104X	CAPACITOR	0.1μF,16V
C3298			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3433			NCB31EK-103X	CAPACITOR	0.01μF,25V
C3299			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3434			NCB31EK-472X	CAPACITOR	0.0047μF,25V
C3304			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3435			NCB21CK-474X	CAPACITOR	0.47μF,16V
C3305			NEA70JM-476X	E CAPACITOR	47μF,6.3V	C3436			NCB31CK-104X	CAPACITOR	0.1μF,16V
C3306			NDC31HJ-470X	CAPACITOR	47pF,50V	C3437			NCB31CK-104X	CAPACITOR	0.1μF,16V
C3307			NDC31HJ-680X	CAPACITOR	68pF,50V	C3438			NEA70JM-107X	E CAPACITOR	100μF,6.3V
C3310			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3439			NDC31HJ-8R0X	CAPACITOR	8pF,50V
C3311			NDC31HJ-101X	CAPACITOR	100pF,50V	C3440			NDC31HJ-100X	CAPACITOR	10pF,50V
C3312			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3441			NDC31HJ-390X	CAPACITOR	39pF,50V
C3351			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3442			NDC31HJ-330X	CAPACITOR	33pF,50V
C3352			NEA70JM-476X	E CAPACITOR	47μF,6.3V	C3443			NDC31HJ-8R0X	CAPACITOR	8pF,50V
C3353			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3444			NDC31HJ-120X	CAPACITOR	12pF,50V
C3354			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3445			NDC31HJ-390X	CAPACITOR	39pF,50V
C3355			NCB21CK-474X	CAPACITOR	0.47μF,16V	C3446			NDC31HJ-330X	CAPACITOR	33pF,50V
C3356			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3501			NDC31HJ-220X	CAPACITOR	22pF,50V
C3357			NCB31EK-223X	CAPACITOR	0.022μF,25V	C3502			NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3358			NBP21CM-105X	T CAPACITOR	1μF,16V	C3503			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3359			NDC31HJ-220X	CAPACITOR	22pF,50V	C3505			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3360			NDC31HJ-180X	CAPACITOR	18pF,50V	C3506			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3361			NDC31HJ-680X	CAPACITOR	68pF,50V	C3507			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3362			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3508			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3363			NEA70JM-476X	E CAPACITOR	47μF,6.3V	C3509			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3364			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3510			NCB31HK-681X	CAPACITOR	680pF,50V
C3365			NCB31EK-153X	CAPACITOR	0.015μF,25V	C3511			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3366			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V	C3512			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3367			NCB31HK-102X	CAPACITOR	0.001μF,50V	C3513			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3368			NDC31HJ-221X	CAPACITOR	220pF,50V	C3514			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3369			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3515			NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3370			NCB31HK-681X	CAPACITOR	680pF,50V	C3516			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3371			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V	C3517			NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3372			NDC31HJ-102X	CAPACITOR	0.001μF,50V	C3518			NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3373			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V	C3519			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3374			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3520			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3402			NEA70JM-107X	E CAPACITOR	100μF,6.3V	C3521			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3403			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3522			NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3404			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3523			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3405			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3524			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3406			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3525			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3407			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3526			NCB31CK-273X	CAPACITOR	0.027μF,16V
C3408			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3527			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3409			NBE21AM-335X	T CAPACITOR	3.3μF,10V	C3528			NCB21AK-105X	CAPACITOR	1μF,10V
C3410			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3529			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3411			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3531			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3412			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3532			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3413			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3533			NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3414			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3534			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3415			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3537			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3419			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3538			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3420			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3539			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3421			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3540			NCB31CK-104X	CAPACITOR	0.1μF,16V
C3422			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3541			NDC31HJ-151X	CAPACITOR	150pF,50V
C3423			NCF21CZ-105X	CAPACITOR	1μF,16V	C3542			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3424			NDC31HJ-8R0X	CAPACITOR	8pF,50V	C3543			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3425			NDC31HJ-120X	CAPACITOR	12pF,50V	C3544			NCB31HK-152X	CAPACITOR	0.0015μF,50V
C3426			NDC31HJ-390X	CAPACITOR	39pF,50V	C3545			NCF21AZ-225X	CAPACITOR	2.2μF,10V
C3427			NDC31HJ-330X	CAPACITOR	33pF,50V	C3546			NCB31HK-103X	CAPACITOR	0.01μF,50V
C3428			NCB31EK-103X	CAPACITOR	0.01μF,25V	C3547			NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3429			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3579			NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3430			NEA70JM-107X	E CAPACITOR	100μF,6.3V	C3580			NEA70JM-226X	E CAPACITOR	22μF,6.3V
C3431			NCB31CK-104X	CAPACITOR	0.1μF,16V	C3581			NCB31HK-103X	CAPACITOR	0.01μF,50V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C3582		NCB31HK-103X	CAPACITOR	0.01μF,50V	C8016		NCB31HK-103X	CAPACITOR	0.01μF,50V
C3583		NEA70JM-476X	E CAPACITOR	47μF,6.3V	C8017		NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3584		NEA70JM-476X	E CAPACITOR	47μF,6.3V	C8018		NCB31HK-103X	CAPACITOR	0.01μF,50V
C3701		NCB31CK-104X	CAPACITOR	0.1μF,16V	C8019		NCF31CZ-104X	CAPACITOR	0.1μF,16V
C3702		NEA70JM-476X	E CAPACITOR	47μF,6.3V	C8020		NDC31HJ-271X	CAPACITOR	270pF,50V
C3703		NCB30JK-474X	CAPACITOR	0.47μF,6.3V	C8021		NDC31HJ-5R0X	CAPACITOR	5pF,50V
C3704		NEA70JM-476X	E CAPACITOR	47μF,6.3V	C8022		NDC31HJ-6R0X	CAPACITOR	6pF,50V
C3705		NCB31EK-103X	CAPACITOR	0.01μF,25V	L1002		NQL17CM-390X	COIL	39μH
C3706		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L1005		NQL184J-390X	COIL	39μH
C3707		NCB31EK-103X	CAPACITOR	0.01μF,25V	L1011		NQL17CM-390X	COIL	39μH
C3708		NCB31EK-103X	CAPACITOR	0.01μF,25V	L1012		NQL17CM-390X	COIL	39μH
C3709		NCB31CK-104X	CAPACITOR	0.1μF,16V	L1013		NQL044K-220X	COIL	22μH
C3710		NCB31CK-104X	CAPACITOR	0.1μF,16V	L1014		NQL32CM-330X	COIL	33μH
C3711		NCB31EK-103X	CAPACITOR	0.01μF,25V	L1016		NQL044K-470X	COIL	47μH
C3712		NCB31EK-103X	CAPACITOR	0.01μF,25V	L1401		NQL044K-100X	COIL	10μH
C3713		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L2101		NQL144K-100X	COIL	10μH
C3717		NDC31HJ-220X	CAPACITOR	22pF,50V	L2102		NQL144K-100X	COIL	10μH
C3718		NDC31HJ-220X	CAPACITOR	22pF,50V	L3001		NQL302N-100X	COIL	10μH
C4202		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3002		NQL302N-100X	COIL	10μH
C4203		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3003		NQL302N-100X	COIL	10μH
C4204		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3005		NQL302N-100X	COIL	10μH
C4205		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3006		NQL302N-100X	COIL	10μH
C4206		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3007		NQL302N-100X	COIL	10μH
C4207		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3009		NQL302N-100X	COIL	10μH
C4208		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3010		NQL302N-100X	COIL	10μH
C4209		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3201		NQL044K-100X	COIL	10μH
C4210		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3202		NQL024J-120X	COIL	12μH
C4301		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3203		NQL044K-100X	COIL	10μH
C4302		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L3204		NQL044K-100X	COIL	10μH
C4303		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L3205		NQL044K-100X	COIL	10μH
C4304		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3206		NQL024J-5R6X	COIL	5.6μH
C4310		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3207		NRS181J-0R0X	MG RESISTOR	0Ω,1/8W
C4311		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3208		NQL044K-680X	COIL	68μH
C4312		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3209		NQL044K-100X	COIL	10μH
C4313		NDC31HJ-331X	CAPACITOR	330pF,50V	L3210		NQL044K-100X	COIL	10μH
C4314		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3211		NQL044K-100X	COIL	10μH
C4315		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3212		NQL044K-100X	COIL	10μH
C4316		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3213		NQL044K-100X	COIL	10μH
C4317		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3301		NQL024J-150X	COIL	15μH
C4318		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3302		NQL044K-100X	COIL	10μH
C4321		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3303		NQL044K-100X	COIL	10μH
C4322		NDC31HJ-100X	CAPACITOR	10pF,50V	L3304		NQL044K-100X	COIL	10μH
C4323		NDC31HJ-100X	CAPACITOR	10pF,50V	L3401		NQL044K-100X	COIL	10μH
C4324		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3402		NQL044K-100X	COIL	10μH
C4325		NDC31HJ-1R0X	CAPACITOR	1pF,50V	L3405		NQL024J-150X	COIL	15μH
C4326		NDC31HJ-100X	CAPACITOR	10pF,50V	L3406		NQL024J-330X	COIL	33μH
C8001		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L3407		NQL044K-100X	COIL	10μH
C8002		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3408		NQL024J-150X	COIL	15μH
C8003		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L3409		NQL024J-330X	COIL	33μH
C8004		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L3410		NQL024J-150X	COIL	15μH
C8005		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3411		NQL024J-330X	COIL	33μH
C8006		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3501		NQL302N-100X	COIL	10μH
C8007		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3502		NQL302N-100X	COIL	10μH
C8008		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3511		NQL044K-470X	COIL	47μH
C8009		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3512		NQL044K-470X	COIL	47μH
C8010		NCB31HK-103X	CAPACITOR	0.01μF,50V	L3513		NQL302N-100X	COIL	10μH
C8011		NCB31HK-102X	CAPACITOR	0.001μF,50V	L3701		NQL044K-100X	COIL	10μH
C8012		NCB31HK-103X	CAPACITOR	0.01μF,50V	L8001		NQL302N-100X	COIL	10μH
C8013		NCB31HK-103X	CAPACITOR	0.01μF,50V	L8002		NQL302N-100X	COIL	10μH
C8014		NEA70JM-226X	E CAPACITOR	22μF,6.3V	L8003		NQL302N-100X	COIL	10μH
C8015		NCF31CZ-104X	CAPACITOR	0.1μF,16V	L8004		NQR0276-001X	COIL	10μH

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
CF3201			NAX0227-001	VCO					
CF3301			NAX0227-001	VCO					
LC1001			PELN1148-223X	NOISE FILTER					
LC1002			PELN1148-223X	NOISE FILTER					
LC1003			PELN0926-223Z	NOISE FILTER					
LC1004			PELN1148-223X	NOISE FILTER					
LC1006			PELN0969-04Y	NOISE FILTER					
LC3501			PELN0926-223Z	NOISE FILTER					
LC3502			PELN0926-223Z	NOISE FILTER					
X1001			NAX0200-001X	C OSCILLATOR					
X1002			NAX0005-001X	CRYSTAL RESONATOR					
X1401			NAX0218-001X	CRYSTAL RESONATOR					
X3001			NAX0206-001X	CRYSTAL RESONATOR					
X3301			QAX0586-001	CRYSTAL RESONATOR					
X4301			NAX0218-001X	CRYSTAL RESONATOR					
X4302			NAX0266-001X	CRYSTAL RESONATOR					
K1001			PELN0984-150Y	NOISE FILTER					
K1002			NQR0129-002X	FERRITE BEAD					
K1401			PELN0984-150Y	NOISE FILTER					
K1402			NQR0129-002X	FERRITE BEAD					
K1403			NQR0129-002X	FERRITE BEAD					
K1404			PELN0968-600Y	NOISE FILTER					
K4301			PELN0984-150Y	NOISE FILTER					
K4302			NQR0227-004X	FERRITE CORE					
K4304			NQR0227-004X	FERRITE CORE					
K4305			NQR0227-004X	FERRITE CORE					
K4306			NQR0227-004X	FERRITE CORE					
K4308			NQR0227-004X	FERRITE CORE					
K8001			NQR0129-002X	FERRITE BEAD					
OT1			PU59915-105	#500SPACER0.01					
J8001			QNZ0097-001	D CONNECTOR,DV JACK					
CN1001			QGF1019C1-10X	FPC CONNECTOR,(1-10)CPU					
CN1002			QGA2001F2-07X	CONNECTOR,(1-7)REG					
CN1004			QGB0801L1-26X	CONNECTOR,(1-26)JIG					
CN1401			QGF0503C1-15V	FFC/FPC CONNECTOR,(1-15)SENSOR					
CN1402			QGF0503C1-20X	FFC/FPC CONNECTOR,(1-20)PRE/REC MDA					
CN2101			QGF1019C1-08X	FPC CONNECTOR,(1-8)AUDIO					
CN3501			QGF0503C1-20X	FFC/FPC CONNECTOR,(1-20)PRE/REC MDA					
CN3701			QGA2001F2-09X	CONNECTOR,(1-9)TERMINAL					

LED2 BOARD ASSEMBLY <90>

PW4	LPA10029-02C4	LED2 BOARD ASSY
D1281	SLA-20040-A1	LE DIODE